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The Mining Journal,

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For Literary Contents see Page 924.

INDEX TO ADVERTISEMENTS.

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN THIS ISSUE.)

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 27, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

13648 James Wynn, 17, St. Ann's Square, Manchester.—Improvements in smoke-consuming apparatus for steam boilers and other purposes.—July 17.

13706 Arthur Thomas Metcalf Johnson and Walter Matthews Baynes, 103, Calabria Road, Highbury, London.—Improvements in safety apparatus for lifts, hoists, miners' cages, and the like.—July 17.

13725 Carl Martini and Hugo Grupe, 10, Friedrichstrasse, Berlin.—Sifting and washing machine for sand, gravel, coal, ores, and other material.—July 18.

13736 James Oliver Gilbert, 32, Chancery Lane, London.—Improvements in or connected with marine and other steam boilers.—July 18.

13742 Tressillian Percy Wiggins and George Herbert Wiggins, 38, Chancery Lane, London.—Improvements in water-gauges for steam generators.—July 18.

13765 Henry Crompton Ashlin, 333, High Holborn, London.—Improvements in steam generators.—July 18.

13771 William Pole Routh and Sherard Osborn Cowper-Coles, 47, Lincoln's Inn Fields, London.—Improvements in and apparatus for the recovery of gold from solutions containing it.—July 18.

13818 Thomas Shore, jun., New Bridge Street, Manchester.—Improvements in steam traps.—July 19.

13831 Edward Waller Stoney, 65, Chancery Lane, London.—Improvements in railway sleepers.—July 19.

13859 Thomas Clarkson, 323, High Holborn, London.—Improvements relating to steam generators.—July 20.

13870 Henry Crompton Ashlin, 333, High Holborn, London.—Improvements in or relating to steam boiler furnaces.—July 20.

13873 Harry Lucas, 18, Southampton Buildings, Chancery Lane, London.—Improvements in or relating to steam boiler furnaces.—July 20.

13876 Carl Wilhelm Staus, 97, Newgate Street, London.—Smoke-consuming apparatus for steam and other furnaces.—July 20.

SPECIFICATIONS PUBLISHED.

11,916, Woods and Atherton, miners' safety lamps, 1894; 12,255, Latham, T. and W., railway buffers, 1894; 12,517, Boult, steam, &c., motors, 1894; 15,419, Birkinshaw, miners' picks, &c., 1894; 1578, Baird, steam generators, 1895; 4156, Beyer, A. F. and A. G., separating minerals, &c., 1895; 9072, Langwitz, reducing ores, 1895.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Beira Junction Railway (Port Beira to Fontesville), Limited.—Registered by Renshaw and Co., 2, Suffolk Lane, E.C., with a capital of £12,500 in 5s. shares. Object: To acquire and turn to account a concession for a railway from the harbour at Beira, in the territory of the Companhia de Mozambique (South Africa) to Fontesville, in the same territory; also to construct a pier at Beira, and with a view to the foregoing objects to adopt and carry into effect an agreement made July 15 between the London and Paris Exploitation Company (Limited) of the first part and this company of the second part. The directors are to be elected by the signatories. Qualification not specified. Remuneration £500 per annum, divisible.

Waitekauri Extended (Limited).—Registered by Francis and Johnson, 38, Austinfriars, E.C., with a capital of £130,000 in 10s. shares. Object: To adopt and carry into effect an agreement, made July 17, between the Western Explorers (Limited) of the one part and G. D. Ingall, on behalf of this company, of the other part, for the acquisition of certain mines, mining, water, or other rights, grants, leases, concessions, claims, options, &c., in the Hauraki mining district, Province of Auckland, in the colony of New Zealand; to develop and turn to account the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all its branches. The directors are J. B. Rush, J. V. Smedley C. Hartridge, and G. Hardie. Qualification, 100 shares. Remuneration, £550 per annum and a percentage of the profits, divisible.

Free Mineral Syndicate (Limited).—Registered by Minchin and Co., 2, Metal Exchange Buildings, E.C., with a capital of £1500 in £1 shares. Object: To enter into an agreement with Captain W. de Burg, and to carry on business as financiers, company promoters, bankers, underwriters, concessionnaires, &c. The directors are J. W. Hughes, B. O. C. Oriebar, and E. R. Steer. Qualification, 50 shares. Remuneration not specified.

Eastern Investment Company (Limited).—Registered July 23 by Travers, Smith, and Co., 4, Throgmorton Street, E.C., with a capital of £500,000 in £1 shares. Objects: To adopt and carry into effect an agreement made July 8 between the Eastern Investment Corporation (Limited), of the one part, and this company (by W. H. Lynch) of the other part, and to establish and carry on financial, mercantile, trading, and mining operations of every description in any part of the world. The first directors—of whom there shall be not less than three nor more than nine—are the persons, other than C. Vincent, who were directors of the vendor company at the date of the above agreement. Qualification, £500. Remuneration, £100 each per annum. Registered office, Bishopsgate Street Within, E.C.

Banner Gold Mine (Limited).—Registered July 23 by A. W. Cook, Pownall Road, Dalston, N.E., with a capital of £150,000 in £1 shares. Objects: To acquire by purchase, lease, underlease, grant, license, or otherwise, any land, mines, mining, water or other rights, grants, leases, claims, concessions, options, mineral properties, &c., to work, explore, maintain, and develop the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all its branches.

East Wealth of Nations Gold Company (Limited).—Registered July 23 by Ingle, Holmes and Sons, 20, Threadneedle Street, E.C., with a capital of £120,000, in 10s. shares. Objects: To adopt and carry into effect an agreement expressed to be made between C. J. McCulloch of the first part and this company of the other part; to acquire any mines, mining and other rights, leases, concessions, grants, claims, options, metalliferous land, &c., in Western Australia, or elsewhere, to develop and work the same, and to carry on the general business of a mining, milling, smelting, and metallurgical company in all or any of its branches.

Rhodesia Gold Reefs (Purdon's), Limited.—Registered July 23 by Hepburn, Son, and Cuteliffe, Bird in-hand Court, Cheapside, E.C., with a capital of £75,000 in £1 shares. Objects: To adopt and carry into effect an agreement made July 18 by F. A Purdon (acting by F. E Harman, his attorney) of the first part, and F. Dugnid, on behalf of this company, of the other part; to acquire any mines, mining, water or other rights, grants, leases, claims, concessions, options, mineral properties, &c., in Africa or elsewhere, and to develop and turn to account the same, and to carry on the business of a mining, milling, smelting, and metallurgical company in all its branches.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

*** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Coal, August 8 (*Brechin, Scotland.*)—For the supply, till May 14, 1896, of Scotch coal, delivered and put into store at the almshouse in 20 ton lots, as required, for the Almshouse Committee of Brechin Parish Council. Sealed tenders, marked "Tenders for Coal," to be lodged with Mr. Robert Allan, clerk, 49, High Street, Brechin.

Pipes. August 10 (*Castlebar, Ireland.*)—For supplying at Castlebar Railway Station cast-iron pipes for Castlebar town waterworks, for the Guardians of Castlebar Union, according to specification prepared by Mr. Chris. Meivany, M.I.C.E., Athlone, from whom copies of specification and bills of quantities may be obtained on lodging £1 sterling, which will be returned on receipt of a *bona fide* tender.

Winding Engines (*South Kirkby, Wakefield.*)—For a pair of 42 inch cylinders, 6 feet stroke, vertical winding engines and 30 feet conical drum. For specifications and particulars apply South Kirkby Colliery Company (Limited), near Wakefield.

VENTERSKROON GOLD FIELD.

ARTICLE No. 1.

[From the *Johannesburg Star.*]

QUITE recently, at a meeting of the newly-formed Geological Society of the Transvaal, a paper was read by Mr. David Draper, F.G.S., upon the Witwatersrand banket formation. He presented a good deal of evidence bearing upon the permanence of the formation in depth, and especially upon what is commonly known as the "basin theory." It was afterwards proclaimed in contemporary journals that Mr. Draper had once and for all exploded this theory, and an outside observer would have concluded from the general tone of their remarks, that the geologists and enquirers of the Rand had, till then, been labouring under an entirely wrong impression with regard to the geological features of the auriferous banket series. Later on, however, another well-known geologist and engineer, Mr. W. H. Curtis, addressed a strong protest to the Geological Society anent this summary treatment of the old "basin theory." He maintained that the Rand banket formation, in its entirety, does actually constitute a "basin," and declared that to deny this proposition was to do a serious injury to the prospects of the Rand gold fields. Now, there is no argument as to the actual disposition of the banket beds beneath the area comprised within the limits of this so-called "basin"—the difference of opinion arises with reference to the propriety, or otherwise, of calling the formation a "basin" formation. It is a distinctly unphilosophical way of doing things, to use technical terms about the meaning of which there can be any misunderstanding, and the sooner the Geological Society of the Transvaal settle among themselves the exact meaning of the term "basin"—to commence with—the better. The term is commonly used in connection with such Tertiary formations as the "Paris," "Hampshire," and "London basins," the strata of which have been deposited in a basin-like depression, or cavity on the surface of the earth. In this sense—the usual one—the Rand banket formation is not a "basin" formation at all. For all practical purposes, it may be considered so, perhaps; but if one must use scientific or technical words, by all means let them be used with precision. This much is agreed upon by everybody—namely, that the auriferous banket formation of the Witwatersrand covers an enormous area of the Southern Transvaal, and the boundary of this area is defined by the upturned edges of the banket beds and their associated quartzites and shales, which form an unbroken periphery or rim right around it. From all parts of this periphery the beds dip, roughly speaking, towards a common centre, which is overlaid by a succession of later deposited beds. This is the "basin theory" pure and simple, as it has been held by Rand engineers any time this last 10 years, and Mr. Draper's facts, far from upsetting it, have greatly confirmed it. With this theory as a working basis, the aim of prospectors has been to trace the course of the banket periphery, or rim, right around the boundary of the "basin." It may be said that this line has now been almost entirely located. There still remain two or three long intervals of ground where the reef formation has not yet been entirely marked out, but its probable position has been calculated to a degree which is a very close approximation to the truth. The difficulties in the way of completing the figure are due to the deep covering of more recent accumulations of earth and rock which overlie the upturned edges of the banket series. Boreholes and other exploring works, however, will soon discover the exact position of the reefs across the gaps which still remain.

The Line Taken

by the outcropping run, so far as it has been traced, is as follows:—Starting from below Randfontein it runs northwards as far as Krugersdorp, and then turning eastward it proceeds past Johannesburg right away to Boksburg, a total distance of about 40 miles. Here then occurs a small gap of no importance, the series being again discovered in the Chimes and Van Ryn neighbourhood. Then their continuity, practically speaking, ceases. The nearest point at which it is again picked up is about 15 miles due south on the farm Varkensfontein, where it is worked very profitably upon the Nigel property. There is a big space to be filled up between Modderfontein and Varkensfontein, and nobody seems to know how the series goes between these two farms. It is certainly not underlying the eastern part of Marievale, for a bore-hole put down in that portion cut into an uncomfomable series of slates on edge at a depth of 250 feet. Recent evidence which has been collected by Mr. Scott Alexander tends to show that the banket formation outcrop, instead of coursing north and south in this break, passes away from Modderfontein to the south-east. Any good map, such as Troye's, will show that a watershed extends in this direction which is apparently a continuation of the great watershed upon which the Johannesburg Hospital is built. It lies to the north of the outcrop of the Main reef series throughout its progress from beyond Krugersdorp to Modderfontein, and clearly marks the elevation of the hard quartzites of the Rand formation. It is due to the protrusion of the great granite mass to the north, and there is good reason to suppose that as the ridge is followed away to the south-east, so the upturned edges of the Rand series will be found to continue on its southernmost flank, until some other protrusion deflects the course of the periphery in another direction. Mr. Scott Alexander has found what he believes to be a portion of the periphery on the farm Kromdraai, near the Waterval river, some 45 miles south-east of Modderfontein. How far it continues in that direction it is difficult to say at present. About 10 miles to the south another long parallel ridge of eruptive rock occurs, and there is little doubt that the rim will be found to lie upon its northern flank right up to the Varkensfontein again. It is a known fact that after going south from the Nigel for about 9 miles, through the farms Marias Drift, Poortje, and Botha's Kraal, it bends round the western extremity of this ridge, and extends south-east again along its southernmost slope through the farms Blinkpoort, Rietfontein, Rietbult, and Brakfontein, to Van Kolder's Kop, a distance of nearly 20 miles. This is the line as marked out by the explorations of Dr. Hatch and his party. Then the periphery bends south to the eastwards of Greylingstad for a short distance only. It soon comes round again to the north-west, and pursues that direction as far as Malan's kraal, when it turns south-west, and makes directly for the Vaal river, where it is found crossing over into the Free State. From Malan's kraal to the Vaal river is a distance of about 16 miles. The upturned edges of the series now pass under the overlying measures of the Vereeniging coal field, and reappear upon the farm Pressedeerfontein some miles westward. Then the great mass of the Vredefort granite pushes them abruptly to the north-west, so that the rim is found crossing back again into the Transvaal, entering it by way of the farm Wittekopfontein, a few miles north of Parys. The banket series is apparently anxious that our Free State cousins should have another chance of profiting by its riches, and so we find it clinging closely to the great granite mass and working round it by the shortest possible route into the Orange Free State again. A good deal of country is passed through, nevertheless, before it succeeds in its design, and it is this long stretch of ground which constitutes

The Venterskroon Gold Field.

The auriferous rim may be followed through the farms Wittekopfontein, Wonderboom, Buffelshoek, Koodoesfontein, Koodoeslaagte, Leeuwfontein, Buffelskloof, Tigerfontein, Rooderand, Nooitgedacht, and Kromdraai, a line of about 30 miles. From the property of the Great Western Gold Mining Company, on Kromdraai, the wandering outcrop runs across the river into the Free State, crossing south-west. What is its line of progress after this is more or less uncertain. It reappears in the Transvaal to the south-west of Klerksdorp. From Klerksdorp the great series stretches northwards again to connect with the Randfontein section, intersecting on its way the farms Welgegund and Muiskraal among others, and crossing eastwards in its final run the farm Rooipan, belonging to the Krugersdorp Syndicate. The area bounded by this great periphery, then, is an enormous one. When the rim is opened up along the whole of its meandering and erratic path, its total length will be found to be something not much less than 400 miles. One after another the Witwatersrand, Randfontein, Heidelberg, and Klerksdorp mining centres have been established upon various sections of the belt, and the results of extensive working upon the banket reefs in each section have shown that they are rich, and sometimes phenomenally so. The latest centre to be added to the list is that on the Venterskroon or Vaal river section, and there is every reason to believe from such evidence as is obtainable that this new gold district will compare very creditably with any of the others. It is not entirely a new district, for it has been known for several years past, during which time capitalists have been keeping a watchful eye upon it. Very little practical mining has been done in the vicinity, mainly owing to the fact that those who have attempted to do anything beyond mere prospecting work have been either incompetent or badly supplied with funds, or both. Several mining engineers of repute and ability have visited the district at odd times, and made partial reports upon it, among others being Messrs. E. P. Rathbone, the East Rand Inspector of Mines, and Mr. A. R. Sawyer, F.G.S. It is understood that these gentlemen hold a very high opinion of the prospects of mining operations on the Venterskroon field, and, acting upon their recommendations and view, a plan of immediate development is being arranged by strong financial people, the most prominent being Messrs. Lewis and Marks, who are largely interested in the affairs of the Vaal River Gold Fields Proprietary Company (Limited). The prospects of this company will be referred to later on. Among other companies which are about to engage in active work are the Amazon, Buffelskloof, and Rooderand Companies. The Amazon is to be reconstructed, while the Buffelskloof and Rooderand ventures are already in a sufficiently satisfactory position, the shares of the latter being all taken up by Paris financiers. Since it has been shown that the Venterskroon gold field is situated upon what is without question a section of the great rim of banket quartzites and shales which bound the so-called "Witwatersrand basin," it remains to be pointed out what resemblance or relation there is, if any, between the well-defined series of banket beds which constitute the Witwatersrand section proper, and those of the Venterskroon section. If the same divisions of strata are to be found in each case, we shall naturally expect to find them in inverted succession on the surface since they are on opposite sides of the basin, and also dipping in opposite directions, or towards each other, for the same reason. The only discrepancy lies in the fact that the beds in these two sections do not dip in contrary directions. The Witwatersrand strata are inclined to the south, and so are the Venterskroon beds. The fact is easily explained, however, for upon examination it is found that the great protrusive mass of the Vredefort granite already spoken of, not satisfied with pushing back the north dipping rim into the Transvaal, has pressed it so closely that the upper portions of it have been bent right over like the crest of a wave after it has reached a sea wall. A similar and well-known example, but on a very small scale, is that of the reef at the western end of the New Rietfontein Mine. The formation in the hill ranges along the Vaal river dips at an angle of about 70° to the south. In depth—how far down cannot be calculated with our present limited knowledge—the beds undoubtedly bend round to their proper northerly dip. The next matter to be discussed, then, is the relation of the various banket horizons to those of the Witwatersrand section. The succession of the strata on the Rand itself is as follows, roughly speaking:—

Hospital Hill red shale.
Quartzites (mainly) 2000 yards.
Main reef series.
Quartzites (mainly) 1200 yards.
Bird reef series.
Quartzites (mainly) 1300 yards.
Kimberley reef series.
Quartzites (mainly).
Elsburg series.

These are the great divisions of the banket formation as it exists in the neighbourhood of Johannesburg. Now, there is no circumstance more characteristic of sedimentary deposits than their tendency to vary in thickness from point to point over large areas. This is especially the case with conglomerate beds, as anyone who knows much of the Rand conglomerates is very well aware. Thick beds thin away to narrow ones, and pebbly deposits which show only a few scattered pebbles in one locality, may at no great distance constitute well-defined layers of dense conglomerate. The quartzite divisions which separate the several series of reefs above enumerated from one another are full of pebbly layers and gritty partings which may in other localities form distinct reef horizons. It is rather difficult, therefore, to establish a correlation between disconnected banket sections over large areas with any certainty. The nature of the pebbles in a conglomerate bed is of great assistance in the matter, but it cannot be said that their evidence is infallible. By comparing thicknesses and the succession of well-marked horizons, one may make fairly reliable deductions, however. It is, perhaps, after all really a matter of little importance whether a series is the extension of the Main reef series or not. When the auriferous solutions were injected into the conglomerate beds of the Rand "basin," they were certainly not confined to the beds known as the South reef and the Main reef leader. Any one of the innumerable banket leaders and beds in the formation may, in places, be quite as rich, if not richer, than the South reef (say) so far as our experience goes. It is, nevertheless, a matter of interest to show there is actually an apparent relation between the leading reef sections of the Venterskroon district, and those of the Rand already mentioned. As we started from the north in giving the last list, so to follow the same order we must take the lower beds first in this instance. Starting from the south, then, near the Vaal, and going north, the following is roughly the section:—

Red shales (Hospital Hill shales).
Quartzites (mainly) 1600 yards.
Oden reef series (Main reef series ?).
Quartzites (mainly) 1000 yards.
Roos reef (Bird reef series ?).
Quartzites (mainly) 1000 yards.
Amazon reef series (Kimberley reef series ?).
Quartzite (mainly).

Now, there is undoubtedly a striking analogy between this section of reef series with the quartzite partings and that given previously. There is a discrepancy in the thicknesses of these quartzite partings, but as a geological fact that is of no significance whatever. The relation and number of the various leaders which go to make up each series is also, it may be observed here, different to that which prevails on the Rand section, but that is a very natural circumstance, and is a fact, therefore, of as little practical moment as the other. Whatever be the real truth with regard to the correlation of the different series in each locality, the broad facts are briefly these—viz., that three well-defined auriferous conglomerate horizons have been traced almost continuously over a distance of 30 miles or thereabouts, on the Venterskroon or Vaal river gold-fields, a distance approximately equal to that between the George and May and the Van Ryn, or practically equal to the whole of the Witwatersrand Main reef series. Numberless assays and pannings taken from each line show that they are payable to a very large extent, and in some instances handsomely so. Whether they correspond to the Main reef, Bird, or Kimberley series, therefore, is not a matter that, with our present knowledge of the banket formation, is worth a moment's consideration. The name of the Main reef series, however, is still a name to conjure with, and for that reason only comparative sections are given in order to interest those people who imagine that the Main reef series is pecuniarily everything. The reefs have been pretty well sampled and prospected for years past, as has already been stated, so that the confidence in the district, which is about to be substantially demonstrated, has not been the outcome of any recent discoveries alone.

(To be continued).

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

Knight's Tribute.

Floated, and now called Glenluce. Shares are a good investment.

Cinderella Mine.

This is the next company that the East Rands are going to float. The claims are only capitalised at about £2000, whilst its neighbour, the Comets claims, are capitalised at about £10,000; and as the claims are of equal value, there is room for a big rise in Cinderellas.

Minerva Mine.

Reef has been struck in the shaft, and assays are equal to those in the adjoining mine (Orion). Milling will be started in September, and the results will be very good.

African Estates.

The flotation of the Vesta Mine is to be carried by this company, and is sure to be a big success. The Vesta has splendid prospects.

Horsham Monitor.

The prospects of this company are very good. Milling will be started with 80 stamps, and it is estimated that a profit of 7s. 6d. per ton is assured, which will give 25 per cent. per annum in dividends. The company owns 208 claims, and has a life of 20 years, so the shares are well worth watching.

Rietfontein Estates.

More than one-half of the claims that the company are purchasing are of doubtful value, and it would be wise to leave these shares severely alone, as the mine does not look too well.

Champ d'Or Deeps.

Mine looking well, and it is estimated that the rich shoot will go 1 ounce to the ton.

South Rand Estate.

This company has lately been floated with a capital of £300,000, of which £75,000 is working capital. The property consists of 2500 acres, and is the unproclaimed portion of the farm Klipspruit, and through which the Steyn Estate reefs have been traced, the assays from which give an average of 17 dwts. from 4 feet of ore, a return which can be considered highly satisfactory. During the past few months there has been quite a rush along this line of country, and the prospects of this and the Steyn Estate Company fully warrant the opinion expressed by some of the best mining engineers on the Rand, that this is a most valuable line of country, and along which many highly payable mines will be opened up. This company starts under most favourable conditions.

Jumpers Mine.

Lower levels improving, and reefs have widened out, and have increased the life of the mine. Shares will go much higher, as they will have fully £4 10s. a share bonus from the Jumpers shares.

French North Rand Estates.

Property adjoining Alexandra Estates, three reefs opened up Assays and pannings show 10 dwts. to the ton, and will also get the Rietfontein reefs.

White Rose.

This mine is looking well; there is good local enquiry for the shares.

An Output Expected from Rhodesia.—Dr. Jameson, who is at Johannesburg on his way northwards, in an interview with a representative of the *Johannesburg Star*, said that an output from Rhodesia might be expected within six months. It was true that they had been there for four years, but only now had they raised enough money and secured proper miners. Previously they had had mostly fortune-seekers who knew nothing about mining. Many Americans were now developing the fields. The Matabele would make a splendid police, and Dr. Jameson said that he hoped to have a thousand of them within two years. He added that the railway would reach Bulawayo within three years.

The Loire Steel Trade.—The steel trade in the Loire is in a very precarious position, and neither the Government nor the railway companies are giving out orders of any importance. Upon the other hand, the industry continues to make considerable progress in the Meurthe-et-Moselle, and it is stated that a new company has just been formed for the establishment of a steel works at Pagny-sur-Moselle. The makers of partly manufactured steel in this district are fairly well employed, but much of the material is going into foreign consumption.

FUTURE OF THE GOLD DISTRICTS OF WEST AUSTRALIA.

By BRENTON SYMONS, M.I.C.E.

THE future of the gold fields of West Australia has been, and still is, a much debated question, many mining experts, especially t'othersiders, having expressed adverse opinions as to their permanency, whilst the West Australians are fully persuaded of their valuable and lasting character, and show that they have the courage of their opinions by building railways to the two principal centres (Cue and Coolgardie), and by the erection of substantial offices, hotels, and stores. English experts differ as to the future, the natural difficulties rather daunting them. Water is the chief trouble in all the districts, while some are almost destitute of timber for mining purposes and fuel for steam machinery. With quartz reefs, the most of them showing gold spreading over such a vast territory, the difficulties, whether due to the disadvantages imposed by Nature, or by the obstacles which oppose themselves to the economical elimination of the gold from the quartz, will most certainly be eventually overcome. Man is too eager in his thirst for gold to be dismayed by the initial hindrances which must always exist in the development of new and imperfectly known deposits.

In discussing the probable future of gold mining in West Australia, it will be useful to consider what are the difficulties to be met and minimised. Deficient rainfall and consequent absence of fresh water and scarcity of salt water is evidently the paramount cause which has indisposed the public to invest capital in the development of the gold deposits that extend quite across the colony for 1500 miles. Although the rainfall has been registered in the settled districts for some years, it is very imperfectly known in the interior east of Southern Cross. There is a rainfall of from 45 to 34 inches on the Darling range, and the agricultural land immediately east of it, but this becomes reduced to 15 inches at Northam, and still less at Spencer's Bridge (the junction for Southern Cross), at which place the average rainfall for five years scarcely reached 10 inches. At Coolgardie the amount registered for 1893 is stated to have been 9 inches, falling in 54 days. It will be sufficiently evident from these figures that there is a steady decrease towards the interior, and also that east of Coolgardie the rainfall must decrease in amount. That heavy rains sometimes fall in the interior is proved by the existence of deep gullies which score the sides of the hills which rise above the arid plains, but the quantity cannot be great, as no watercourses are visible at a short distance from the base of the ranges. The Government have been unremitting in their efforts to provide water along the tracks which carry supplies to the mining centres, having sunk wells and constructed large and expensive reservoirs or dams. These have been of immense service to the teamsters and travellers; but, notwithstanding, they are often devoid of water owing to the paucity of the rainfall and the enormous evaporation. Of course, the collection of surface water will be of great importance to the mines, but it can hardly be depended upon for a constant battery supply, though as fresh water its value can hardly be over-estimated. The water at present utilised for running the stamps is nearly all obtained from the shafts, but in a few of the mines it is obtained by pumping water from the salt lakes, where they happen to be favourably placed. It is very rarely that water is ever seen in these so-called lakes, and this leads to the inference that only an infinitesimal proportion of the rainfall reaches them, and this the super-saturated condition of its waters tends to confirm. The lakes are usually situated in the lowest depression of the extensive plains that surround them, but occasionally they are environed by hills, as is the case at Lake Cowan, in the Dundas gold field, where consequently there is more water than is usually the case. The lakes are, therefore, naturally shallow, and contain only a few feet of saturated mud and sand. To obtain the water trenches have to be cut so as to present a large surface for the percolation into them of the water. It appears, therefore, that these basins of saturated soil would soon become exhausted if a continual drain was made upon their aqueous contents. At Southern Cross, where they have been pumping water from them for condensing purposes, there are already complaints of gradual exhaustion. Some of these lakes have, however, such an immense area that it may take a considerable time to dry them, though it is far from certain that they will furnish for any lengthened period a supply for battery purposes.

Nearly the whole of the water at present used to run the battery is obtained from the mine shafts themselves, though some is pumped or lifted from boreholes or wells. In the latter case it is only used by mines which have little or no shaft water, and is so expensive to cart to the stamps that such water can only be used when the rock is exceptionally rich; at Bayley's the water cost was £1 5s. per ton of ore crushed. The mine water is met at different depths, but seldom less than 100 feet. At Bayley's, though the shaft is nearly 400 feet from surface, not much water is forthcoming. With the exception (in the Coolgardie field) of Mount Burgess Mine, there are no mills which possess enough water to run continuously during the 24 hours. The extent of the underground reservoirs depends on, first, the rainfall, and then the porosity of the rock. The granite seems to hold much water, and is not salt, but the water is at great depth. The hornblendic rocks are, where schistose, capable of storing a considerable quantity of water, as is the case along the metamorphic rock striking meridionally along the eastern edge of the granitic belt stretching from Cue to Dundas; but towards the interior the hornblendic rocks become more compact and crystalline, and the interstitial spaces become much less. It is probable that a large portion of the water now obtained drains towards the shafts through the gangue and selvedges of the lodes. In the case where no open lodestuff exists, or where the gangue is affixed firmly to the walls, but a small supply of water can be expected. The statistics furnished by the Government show that 9 or 10 inches of rain fell in Coolgardie in 1893, but this rainfall was spread over 50 days. Supposing a shower of rain registering ½ inch should fall, the sand would be saturated to a depth, perhaps, of 2 inches, or if it were even more the sun would draw it to the surface and evaporate it, and if forest and bush existed, the roots would quickly absorb nearly the whole of it. It is a matter of astonishment to one riding through the extensive and lofty forests of eucalypti to understand how it is possible for them to continue green with so little moisture. The fact probably is that their roots absorb, or nearly so, the annual rainfall, and when one notices that the level of the underground water is so far from the surface even in the lowest depressions, it seems doubtful whether the small proportion of the rainfall which escapes surface attraction will not be exhausted if steadily drawn on for water to work the batteries.

That mining experts entertain serious doubts as to the insufficiency of surface collection, or of a supply of water from the shafts, is evidenced by the gigantic schemes proposed to meet the dearth of water. Thus Messrs. Ebbs and Norman, of Coolgardie, have proposed, on behalf of the Coolgardie Water Corporation, to pump water from the fresh water lagoons between Esperance Bay and Fanny's Cove (220 miles) to Coolgardie at the rate of 2,000,000 gallons daily. As the difference in height above sea level is 300 feet, the machinery required would be enormous. They propose a charge of a sovereign per thousand gallons, but even this would cost 10s. or 15s. per ton of quartz crushed and treated. The cost of this scheme is estimated at £1,500,000. The Government have also been badgered to bore for artesian water in the gold fields; but anyone who has visited either Cue or Coolgardie would recognise that in a folded metamorphic and granitic country any adequate supply from such operations must be impossible.

Early in 1894 Mr. C. G. Millar proposed a scheme which he was sanguine would solve, as far as Coolgardie was concerned, the water question. His proposal was to put a huge mill near Guilford, on the Swan river, with perfect appliances for the treatment of fine quartz and pyritous ores. This was a bold idea, but it is open to many objections, the greatest of which would be that low-grade ore (really the major portion of the crushing in any gold district) could not bear the cost of transport. The average cost of cartage to the railway terminus and freight per rail, with the loading, discharging, &c., could not be estimated at less than 25s. per ton, or nearly 7 dwts.; and to this must be added the cost of reduction at the mill. The disposal of such a quantity of tailings, which could not be permitted to run into the Swan river, would add a serious item to the charges for reduction. As only rich quartz from the mines within reasonable distance of the railway station could be sent, most of the mines would be unable to send in their quartz. As the lodes were worked the average grade of quartz would decrease, and ere long the mill would probably not receive sufficient quartz to keep the stamps going, and this would lead to financial failure. The question of the failure of the supply of mine water can only be decided in the future; in the meantime most mines will have sufficient to run a moderate number of stamps. The Murchison district, though the quantity and quality of the water leaves much to be desired, yet water is, in most of the mining camps, comparatively abundant.

The insufficiency of water for treating the quartz by the usual amalgamating process points to the necessity of installing some process of reduction which does not demand such a large quantity of water, and such process should also be capable of treating the auriferous pyrites and mispickel which the working of the veins has shown to exist at no great depth. Circumstances point strongly in the direction of dry crushing either by the batteries or other suitable machinery, and the treatment of the pulp to extract, first, the grain gold, and afterwards to eliminate the fine gold either by chlorine or with the aid of the cyanide process. The managers of mines already recognise that the present system must be changed, and attempts to crush dry and treat with cyanide are being made. No doubt some of the coarser grains not caught by the dry machines, and too large to be thoroughly dissolved by the cyanide, will in the beginning be lost, but the cheaper method of extraction, both for the free gold and for the gold combined with the pyrites, will, as the process is perfected, compensate for this loss. It must not be forgotten that "shows" and coarse gold exist, but in small relative proportions to the fine gold, and that the progress of the mining fields must be made by crushing reefs of comparatively low average. If by dry crushing and subsequent treatment of the quartz pulp by a wet process should be capable of relieving the quartz of about four-fifths of the contained gold, the future of the gold fields may be considered secure, especially when the extension of the rails to the mines relieves the tension of high prices for freight, labour, and supplies, permitting the working of lodes which produce 8 or 10 dwts. to the ton of rock crushed. This applies only to mines not over-capitalised, and which are worked on business lines. If the chlorine process should be found the best adapted for the ores, salt could be obtained for the trouble of collecting and crystallising, not a slow operation under a tropical sun and desiccated atmosphere.

Some of the districts will labour under the disadvantages of a scarcity of timber for mining and building purposes, and the dearness of the fuel requisite for putting the machinery in motion. The gold fields of Yilgarn, Coolgardie, and Dundas being in the midst of immense forests are amply provided, as well as a portion of the Pilbarra district; but at Murchison timber for mining is almost non-existent, and the bush fuel is excessively expensive and will rapidly become exhausted. Both in Coolgardie and at Cue kerosene is being used to raise steam, as it saves water and minimises the trouble of cleansing the boilers. It is, however, almost certain that the lately-discovered seams in the Collie coal field near the port of Bunbury, will, when the railways are completed, be in a position to supply cheap fuel.

The discovery of gold is too recent to have enabled developments to prove the value of the gold fields in depth, but so far as shafts have been sunk, they have exposed an average grade equal to other districts. If the gold produce, as against the number of men employed, has shown a somewhat meagre result, it is because alluvial gold gravels have not been so prominent as in the Eastern colonies, though much more gold has been obtained from reefing at the same stage of development. The attention diverted to "shows," both by prospectors and promoters, has prevented the development of really good battery lodes. These rich shoots have also led the public to believe that the workings of the mines would lead to immediate dividends, forgetting that a gold mine, similar to a mine of any other metal, requires to be opened by means of shafts and levels. Seeing that so little real mining has been yet done, it is too early to predict a brilliant future, but enough has been done to prove that scores of lodes will, when railway communications have been perfected, be more or less profitable, that individual properties will be very rich, and that the possibilities of the future are enormous.

PLACER WORKINGS IN ALASKA.—The *Mining Industry*, Denver, speaking of placer workings in Alaska says:—"In many districts the gold-bearing rock is 20 or more feet below the surface, and shafts must be sunk to that depth through ground frozen solid, and by a most laborious process. The prospect holes are usually about 3½ feet wide by 6 feet long. Enough wood must be cut to cover this space, and a rousing fire must be kept up for almost a whole day before the ground is sufficiently thawed for the miner to get out a foot or a foot and a half of gravel and soil. One man can burn a hole down about a foot a day. The work can be done only when all the surface water is frozen, otherwise it would drain into the prospect hole. In this region wells have been sunk 75 feet or more, all through frozen ground, and the miners say they never got below the frost line."

MEETINGS OF MINING COMPANIES.

FRONTINO AND BOLIVIA GOLD MINING COMPANY, LIMITED.

Profits and returns increasing.—Developments proceeding vigorously.

THE half-yearly general meeting of the shareholders in the Frontino and Bolivia (South American) Gold Mining Company (Limited) was held on Monday, at Winchester House, the chair being occupied by Mr. RICHARD DONAGAN.

The SECRETARY (Mr. J. Jameson Truran) read the notice convening the meeting.

The CHAIRMAN, who was received with cheers, said: Ladies and gentlemen—I have now to move the first resolution:—"That the directors' report now presented be received and adopted, and that the accounts of the company to December 31, 1894, having been examined and audited, be now passed and allowed." You will have seen that the proceeds of the gold sales and the value of the sulphurets—obtained during the half-year but not realised—amount together to £53,501 11s. 6d. This is, with two exceptions, the largest return that has ever been made in any half-year. The exceptions were £53,605 to June, 1892, and a return of £54,725 1s. 5d. during the half-year ending December 31, 1892. Two years ago, therefore, we had a return for six months exceeding by £1223 9s. 11d. the returns for the six months now under review. But it will be satisfactory to compare the profit realised. In the half-year ending December, 1892, owing to the heavy expenditure made upon the mines, and charged to revenue, the profit came out at £11,046, while in the half-year to December, 1894—although all expenditure made on the mines has in like manner been charged to revenue—the profit comes out at £17,335. If you turn to the balance-sheet of June 30, 1894, and compare the balance-sheet now presented, you will see that no addition has been made to capital account during the half-year, notwithstanding the fact that a great deal has been done during the half-year to improve the condition of the mines. From this it will be seen that we are steadily pursuing a course which, so far as can be seen, must result in a gratifying increase of profit at an early date; we are bringing the mines to what we feel assured will very soon be a state of greater productiveness, while when that has been achieved the expenditure now being incurred with that object will be materially lessened. We shall see this more plainly when I come to speak regarding each of the mines. On proceeding to say a few words on the subject of the half-year just expired, I regret to have to mention the occurrence of a revolution which broke out towards the end of January. Fortunately it was not till the end, as thereby the gold for December, and the summary of the accounts for that month came forward as usual. Our work was, of course, much interfered with. There was a levy made upon us of 200 men, and a great number ran away in order to avoid the conscription, and with a view to continuing the mining work as much as possible the extra works had to be moderated or even stopped altogether. Thus we have not done so badly, as we have had returns amounting to £41,220 during the half-year, and according to the circulars issued and the telegram received relating to June an estimated profit of £8220 has been made. This profit would have been more, but that, no sooner was the war over than we had drought, and owing chiefly to the great scarcity of water the returns for June fell off by about £2000, and the profit apparently will be found to be less than £500. Still this drought, though very unfortunate as a successor to civil war, is by no means an unmixed evil—inasmuch as it will doubtless facilitate the progress of the works interrupted by the revolution. The amount of expenses for June, as cabled, shows that work is proceeding vigorously, and, no doubt, the erection of the new mill for Salada Mine, and the construction of the Tias watercourse have advanced rapidly during the dry weather. Again, the weather will harden and consolidate the defective road to Zaragoza, and probably advantage will be taken of that circumstance to transport a lot of the accumulated sulphurets from the mines to the river; and thus, although the profit from the mines in June is so small, some of the old impounded profit may be expected to be released. From letters just to hand we learn that the falling off in the returns for June arose from several causes. There was a breakage in the axle of the Silencio mill, which caused a stoppage of that mill for eight days while the damage was being repaired, and, as troubles never come singly, there was an incursion of water into the Salada Mine from the San Joaquin workings through No. 2 crosscut. We have been looking to No. 2 crosscut to drain the workings, but unfortunately the water came streaming in just at the time when the drought made the pumping wheel unable to cope with the extra water. Another drawing lift was put in, and in a few days this lowered the water. In a short time the old workings will be emptied and the difficulty will cease—but, of course, the interruption to work at Salada in June was considerable, and was very unpleasant. As to the sulphurets, advantage was taken of the last dry season to get a large quantity down to the river. Owing to the war the steamers had been seized by the Government, and traffic was consequently stopped and the sulphurets, therefore, accumulated at Zaragoza, but on the resumption of the steamers no less than 1780 boxes were shipped (about 73 tons), and these arrived on June 21, and are now being sold in London. We have advices of the shipment of 372 more boxes (about 14 tons), which will arrive shortly, and will be then realised. Still the quantity thus to hand and on their way is very much less than the production of the six months, so that there is, in fact, a further accumulation of sulphurets at the mines, and consequently an increase in the profit temporarily impounded. The revolution has unfortunately suspended the trials for the treatment of these sulphurets, because we had for the time no hands to spare for this work, but we hope it may not now be long before a roasting furnace will be at work, by which the bulk and weight of the material will be reduced about 30 per cent., and we are in hopes that it may be practicable to treat the roasted material in such a way as to make the ultimate result very portable. If that should be achieved the contents of the sulphurets will come forward almost as soon as the bar gold, and enable us on this side to divide our profits much more closely than at present. The accumulated sulphurets represent to nearly their full value so much boxed-up profit—inasmuch as the cost of their production has been already paid out of the proceeds of the bar gold—leaving only the cost of transport to be paid out of the proceeds; and, seeing that they are valued low, the amount they realise in excess of the valuation goes some way towards the transport charges. In other words, every £1000 worth of sulphurets detained in Colombia means about £950 of our profit, which we are debarred from dividing among the shareholders, and as in the balance-sheet now before you the sulphurets are valued at £12,687, by far the greater portion of which is detained in Colombia, you can easily judge of the large sum which we are precluded from dividing, and which is, in fact, compulsorily carried forward to the credit of profit and loss as profit undivided. With regard to the mines at Silencio, work has been greatly interfered with by the revolution. Mr. Eustice wrote in April:—"Silencio suffered considerably, and, indeed, we were without miners or labourers of any class. Those who were not taken as recruits hid themselves in the mountains, or escaped and went to their homes." In consequence of this the sinking of the shaft was stopped, and the driving of the Bolivia crosscut was suspended, and ore for the mill was taken from the most easily accessible places, and where the mineral is of a mixed nature, and comparatively poor. The sinking of the shaft was resumed in May, the crosscut to the lode at the lowest point (crosscut No. 7) having been previously driven until it appeared to be quite close to the lode and work generally was resumed; so that on June 7 Mr. Eustice wrote:—"Very good progress is made in advancing, and I hope to be well ahead in a month or so to make up for the drawbacks of the first months of the year." The latest advice just received states that the shaft is being sunk; that No. 7 crosscut is not yet in the lode, but without doubt will be reported as having intersected it by the next letter, that the winze below No. 6 is in good mineral, a favourable sign for No. 7; that in the Bolivia crosscut soft mineral had been cut, assaying ¾ of an ounce per ton; and that exploration work had been extra brisk towards making up for delays in previous months. At Salada, although work was much interrupted, some important progress has been made. In the first place, the No. 2 crosscut and the No. 7 evel driven south therefrom intersected the lode in April, and good ore was found there—12 tons to the fathom of 1¼ ounce mineral, which, on the level being driven north and south, improved to 14 tons, of 1¾ ounce, in May; and in the mine report for June, just to hand, and not yet published, the No. 7 level driven north appears for the first time separately as yielding 12 tons per fathom of 1¼ ounce, and the same level south 14 tons of 1¾ ounce. The sinking of the shaft was resumed, but has been subject to several hitches, notably the incursion of water already referred to. However, this last hitch will have the effect of draining the ground below No. 6, and work there, arrested by the accumulated water, will very soon be practicable, and it is known there is rich ore there. The latest advices are most interesting. Condensed into a few words, they say that the ground in the bottom of the shaft is such that the lode may be cut in it at any time; that the levels north and south are in "splendid ore," and Mr. Seccombe, in his mine report, says:—"In No. 7 level south the Salada lode and the flat lode are practically together." So the long-looked-for junction of the lode is evidently not far off, and I have good authority—viz., that of one of our officers in this room—for saying that the lode about to be cut in the shafe will probably be below the junction of the two lodes. If it is, bravissimo! may it be big and rich! (Cheers and laughter.) Nothing is said in the last letter about the progress of the erection of the new mill for Salada, but Mr. Eustice concludes his remarks on Salada with these words; "The mine looks well everywhere, and the starting of the new mill is anxiously awaited," and I hope you will agree with me in thinking that this rather signifies that they will not have to wait long. At Cordoba we have for some time been on tenterhooks of expectation for the cutting of the lode by the No. 8 crosscut. In February something was intersected which was thought to be the lode, but it was afterwards considered that it was not so, and the crosscut was continued. It intersected another mineral which was also rejected as not being the lode, and the crosscut was again continued. Then it reached beyond the range of where the lode could possibly be, and so it was determined to explore the rejected mineral, and a few feet of drivage north and south leads to the belief that the mineral in question is the Cordoba lode. A fortnight's further exploration will settle the point, and Mr. Eustice fully expects to announce in his next letter that the lode has been found. In the meantime some ore is being obtained from the old places, but barely enough to keep the mill employed, thought it is working slowly through deficient water. A new mill is being erected at the mouth of No. 8 crosscut as, in future, the ore will come out by that opening. A crosscut is being driven to the east from No. 7 to explore some mineral believed to exist there, and if it should be met with it would be brought out by No. 7, and crushed in Cordoba old mill. At Tigrito the No. 7 level is being driven from the Humedad crosscut east and west. In the west drivage there have been for some time indications of coming on good mineral, and the cutting of a rich shoot has been for some time expected. Up to May last there was no actual result, but in that month the lode yielded 6 tons to the fathom of ½ ounce mineral. In the mine report for June, this spot is reported as yielding 12 tons to the fathom of ½ ounce mineral, and Mr. Eustice in his last letter, dated June 23, says:—"In the drivage west the lode has very much improved in size and quality, being 18 inches thick, and its produce by milling is fair, amounting to ¾ ounce per ton." The eastern end, he says, is on a small vein only a few inches thick; but judging from the lode on the western side, it can be hoped that a similar change will occur east as the level advances in that direction. As to Marmajito Mine, I hardly know how to speak so as to explain the matter properly, and yet avoid appearing too sanguine. The advices recently received are simply amazing. This mine and the adjacent one—Marmajon—were for many years worked by a tributer with very small results, and when the two were taken over and worked by the company we expected that we might make a fair profit after the mines had been got into shipshape—but nothing very extraordinary. In April last the lode seemed to improve as the drivage went westward. In May it was reported that the east end was in rich rock, the stopes above in excellent ore, and the west end also in good ore, and it was at the same time announced that it was determined to drive a new crosscut lower down the Playa Valley, and by and bye to have a new mill at its mouth. In these advices Mr. Eustice enclosed a letter to me in which he said: "Marmajito is rich, indeed I hardly know which is best, La Salada or this, but we can only mill a limited quantity in these old native mills." The next advices mentioned that the new crosscut had been started, that a recent survey had shown that at the point where the crosscut should intersect the lode it would be about 1000 feet on the lode to a point directly under No. 2 crosscut, and that there should be about 150 feet of backs or stoping ground above the new crosscut. The report then goes on to refer to "at least one other lode" to be cut in the drivage, and at the spot where the mill is to be erected "the water obtainable is sufficient for 20 stamps." Since Mr. Eustice wrote his letter to me, Salada has greatly improved, and now the remark about the two mines hardly applies; but I mention it as showing what a promising mine Marmajito is. Of course, in Salada we have two crosscuts to the lode, with levels driven therefrom; while in Marmajito we have as yet only one crosscut and another just begun. At Salada the reports relate to what the points are. At Marmajito they relate to what the points are in one place, and what they may be later on in the other, supposing the lode found in the one crosscut should prove equally good in the second. Before leaving the subject of the mines, I must refer to the important matter of the addition to our water-power, which will shortly be obtained by the acquisition of one half of the Tias stream. I spoke of this at our meeting in December last, and of the advantages to accrue from it, and if it had not been for the revolution, doubtless the water would have been on the property ere this. I explained that this addition to our water-power would enable us to enlarge our new mill at Salada if we had the ore for it, which there is now no doubt about, and to sink the Salada shaft deeper than originally contemplated; to do much the same with our mill and shaft at Silencio. Also that our use of the second half of the water, after its use by the other party, would supplement the supply to Cordoba. I may now add that when the new mill for Cordoba is in use the old mill can, with the aid of this water, be kept going also, and can be used for Garibaldi ores—an entirely new addition to our produce—and, moreover, the water can then be sent on to Marmajito in aid of the water available there for the existing mills of 12 heads and 9 heads, and the intended new mill, which may be one of 20 heads. The Tias water is to be on the property at about the time of the starting of the new mill at Salada, which new mill, I should have stated, is to be lighted by electricity like the Silencio mill. One of our officers—Mr. W. Truran, a son of our secretary—has returned from his three years' engagement, and is now present, and after the meeting is over he will be pleased to answer any enquiries, and to show and explain some beautiful specimens of ore he has brought with him, and which are now on the table. He will be off in September for another three years. There is nothing fresh from the Antioquia Company, and until the mine is drained by water-power we cannot expect much. The revolution stopped outdoor work, but we hope that it will be resumed briskly, and that the pumping wheel may at last be got into action. With regard to the dividend, you will have seen that we propose to declare one of 1s. a share, and the date at which we will pay it is August 3—viz., next Saturday. On March 15 last we had an interim dividend of 1s. a share, so the two together make 2s. for the half-year, being at the rate of 20 per cent. per annum. The delay in payment has arisen entirely from the delays in communication through the revolution, so you must not regard this as any real interruption of our quarterly dividends. The dividend to be declared to-day would have been declared and paid in June under ordinary circumstances, and it is, in fact, the June dividend not paid till August, solely because of the war. Something of the same kind happened before—that is to say, two years ago. In March, 1893, we had a dividend, and then not another till July; but we had a third in October and a fourth in December. Perhaps in October, 1895, we may have a third dividend, and a fourth in December. It is too early yet to say, but, at all events, the dividend declared to-day is only the June dividend. And now for a few words with regard to the reserve fund. When this was started, I explained that we proposed to put £300 to reserve fund for every 6d. of dividend paid—which was, in fact, as nearly as possible, 10 per cent. upon the amount of the dividend, and to continue this rate until £10,000 Consols was reached, when a reduced rate might be adopted. When we declared the interim dividend of 1s. in March last, we allocated to the reserve fund £600—the usual proportion—and when we subsequently invested that sum, together with the accrued dividends on the stock, the effect was to bring the total investments to £10,182 Consols. We, therefore, propose, on the present and on subsequent occasions, to reduce the proportion carried to reserve to 5 per cent. on the dividend paid, instead of 10 per cent,—or, as you will see in the report, £300 instead of £600. With this rate of putting to reserve, together with the investment of the dividends, the Consols, or any other stock that may be determined on, will gradually creep up. Personally, I am an advocate for a large reserve fund. Happily, we have at present no use for it, but we may have such at some future time, and, therefore, I am about to make a suggestion. According to all appearance the time is approaching when a larger dividend than 1s a quarter may be reasonably looked for, and I, therefore, urge that, whenever such a dividend is paid, the reserve fund shall occasionally participate in our joy by having 10 per cent. instead of 5; also, that whenever the sulphurets are successfully treated, and the accumulation shall be got over for realisation, we should make a levy of 10 per cent. upon any division of the impounded profits. We then shall be prepared for any emergency. I now move the resolution which I read, and, when it has been seconded, shall be pleased to hear any remarks and to answer any questions. (Loud applause.)

Sir GEORGE HARRIS seconded the motion, saying that the account of the position of the mines given by the Chairman was both complete and accurate, and was endorsed by all the members of the board. One thing to which he had not referred was the introduction of steam-power at the mines. There had been considerable anxiety in the past as to Silencio, where they were getting so deep that it was difficult to cope with the work by means of the horse-whim. A steam-engine had consequently been introduced, and would be of immense service in carrying on operations upon the mine. News had arrived of the fact that the parts of the boiler for the steam-engine at Salada were already arriving, which was a very fortunate circumstance, the work of transport having been accomplished with great rapidity. The shipping of the boiler was only made in April. The engines would be useful, not only for hoisting, but in getting the water at the mines under control in times of flood. Seeing that the country had just passed through a revolution, he thought it a matter for great congratulation that, owing to the tact exercised by the heads of the staff, the property had not been at all interfered with, though the operations had been somewhat retarded.

Mr. LEA SMITH congratulated the directors upon the wonderfully successful nature of the report they had been able to present, but yet notwithstanding that the company was now paying 20 per cent., and had an additional 10 per cent. in the sulphurets, the shares were quoted on the market at a figure he thought to be ridiculously low. He had been very glad to hear the Chairman's remarks as to the reserve fund. When a company was doing well, he thought a very large sum should be put into the reserve fund. They could never tell what was going to happen, and it was well to be prepared against all contingencies. Consols could be sold at any time when an improvement was needed at the mine to keep it up to date. The staff on the other side had deserved the best thanks of the shareholders for their care of the company's interests, and at the same time he could not, personally, thank the Chairman too much for the attention he had given to the working of the property. (Applause.) Shareholders, he thought, should attend meetings of the company in greater numbers and support the Chairman. He, himself, always made a point of attending the meetings of that company, in order to get a full history of what was going on, and he was satisfied that he could rely on every word the Chairman said. (Hear, hear.)

Mr. ALEXANDER said he had come up from Cornwall on purpose to attend the meeting, and he was glad of an opportunity of expressing his satisfaction with the financial position of the company, which appeared to him to be the strongest of any company on the mining list. At the same time, he thought the directors might pay a somewhat larger dividend out of moneys in hand, which might fairly be distributed amongst the shareholders.

Mr. ROTHWELL said he always experienced great pleasure in attending meetings of this company, because they could always rely upon what they were told, and what they were told was always satisfactory. The larger profit per ton was, he supposed, due to the much greater tonnage crushed, and to the consequent reduction in the costs. The time when the company would have increased dividends could not be far off, and he hoped the directors would, in the meantime, adhere to their policy of maintaining the reserve fund.

Mr. C. F. LOWE said that the Chairman had dealt with water, Sir George Harris with steam, and he wished to make a few remarks about another source of power which had always been his pet hobby—electricity. A few days before he had read with a great deal of interest an article in *The Times* newspaper describing the successful application of the power of the Niagara Falls to the generation of an enormous electrical force. He ventured to hope that the experience gained in Canada and the United States, in this way might be available in a smaller degree for the little Niagara which they had at the foot of their property. (Applause.) So far nothing had been done in this direction beyond lighting the mills with electricity, but at any rate, they had made a start. Another matter to which he desired to refer was the policy of maintaining the reserve fund at a proper figure. He was glad to see that the shareholders approved of this policy. In the case of any extraordinary circumstances occurring at the mine—such as a period of drought, like the one from which they were now suffering—and a consequent suspension for a time of the payment of dividends, a fair proportion of the reserve fund might be applied to enable the board to make a distribution equal to the usual amount. In addition to that, if they found a favourable opportunity of purchasing a suitable mine in the neighbourhood, the reserve fund might be drawn upon for the purpose of acquiring it. For these and other reasons he was very glad to see that the shareholders were in favour of strengthening and increasing the reserve fund.

The CHAIRMAN, speaking in reply to the observations of shareholders, said it did seem an extraordinary thing that a company that was paying 20 per cent. had its shares quoted on the market at a premium of only a few shillings. This was probably due just now to the fact that large blocks of shares were being sold by the executors of a large shareholder who had recently died.

The motion for the adoption of the report and accounts was then put and carried unanimously.

The CHAIRMAN then moved:—

> That a dividend of 1s. per share free of income-tax, be this day declared payable on August 3, to the shareholders on the register this day, making with the interim dividend of 1s. per share paid on March 15 last, a distribution of 2s. per share for the half-year.

The Hon. F. C. DRUMMOND seconded the motion, which was carried unanimously.

On the motion of Mr. LEA SMITH, seconded by Mr. JACKSON, a resolution was unanimously adopted, voting the directors an additional £250 for the current year, in recognition of their services

Hearty votes of thanks to the staff both home and foreign, and to the Chairman and directors concluded the proceedings.

THE AUSTRALIAN MINING COMPANY.

A rich discovery in the neighbourhood.—Another dividend.

The annual general meeting of the shareholders in the Australian Mining Company was held on Monday, at the Guildhall Tavern, Gresham-street, the chair being occupied by Mr. HENRY COLLIER.

The SECRETARY (Mr. Edgar Collier) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—The principal observation I have to make with reference to the report and balance-sheet is that up to the present time, as you will see by referring to the figures, we have received about £700 more than we have distributed in way of capital since the cessation of active mining operations by this company; and although the sum is a small one, I think the present is a good opportunity to square that account by distributing as much as we have got in hand. Then, in addition to that, which is not of much importance, there are the mining operations which are being carried on by another company, with which we have nothing to do except in the way of taking royalty upon their product. They only work the ore that is in sight from the shafts sunk by this company 30 or 40 years ago, and it is a fact, from what cause I cannot say, that during the last year the ore has become lower in value. They got less gold out of a ton of ore than before. When they first commenced operations they attempted chemically to extract all the gold in the ore. That, however, was found so expensive that the costs of the extraction were not covered by the gold obtained. Then they merely separated the particles of gold from the fragments of ore by water, mercury, and other processes. How much gold there remains in the ore we have not been able to ascertain, and perhaps they have not, but you see that whereas at one time they got 4 dwts. per ton, they have latterly only been able to get 2 dwts. The former figure would yield a little profit, seeing that they had nothing to do but take the ore where it remained inaccessible to us in former times; but when it comes to 2 dwts. per ton of material, you can easily understand that the operation must be carried on at a loss. Now, therefore, they are putting up machinery which will enable them to work at a lower level, and the present manager thinks, from careful examinations, that the ore at a greater depth is richer than where they are at present working—180 feet from the surface. Our shaft is down 360 feet, and, therefore, it necessitates only a little farther expenditure of pumping and lifting to go deeper. That is all I have to say with regard to the report, but I may state that since that report was drawn up news has come to hand that rich gold has been found at a depth of 95 feet at a place called Mount Pleasant, about 10 miles off. This place was worked for gold some 20 or 30 years ago, and abandoned because it did not yield sufficient, but if they get ground anything like as rich as they have now discovered—that is, over 1 ounce to the ton—of course they will go on. In any case it is satisfactory to know that good gold has been found in the neighbourhood, about 100 feet from surface. The Chairman concluded by moving the adoption of the report and accounts.

Mr. W. J. C. CUTBILL seconded the motion, which was carried unanimously.

The retiring directors—Mr. A. T. Collier and Mr. F. T. Cutbill—having been re-elected to the board, and the auditors—Messrs. Gordon, Mylne, and Smith—having been reappointed—the proceedings terminated with a vote of thanks to the Chairman and directors.

WEST AUSTRALIAN GOLD FIELDS, LIMITED.

An enthusiastic meeting.—A satisfactory forecast as to profit.

The first ordinary general meeting of the West Australian Gold Fields (Limited) was held on Wednesday at Winchester House, Old Broad-street, E.C., the Right Hon. Lord CASTLETOWN presiding.

The ASSISTANT SECRETARY (Mr. G. W. Jeffery) read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen—In the first place allow me to congratulate ourselves on so large an attendance. It shows the deep interest the shareholders take in our work, and which, I believe, they appreciate. I consider it a great honour to be spokesman here to day of one of the most successful, if not the most successful, of Westralian companies, and I also feel very pleased to think that I have proved a true prophet. (Hear, hear.) I told those who attended the statutory meeting in March, 1894, that our policy would be to push forward, to be energetic, but not to be hasty. That has been our policy, and it has been eminently successful. I said gold had been found in payable quantities. It has been found not only in payable quantities, but I believe it to be in inexhaustible quantities, and that we are dealing with what will prove to be the largest gold field in the world's history. I told you then that water, an absolute necessity, was available, and would be found in sufficient quantities. It has been found, in some cases, in too large a quantity, but in any case the water question has, I believe, been set at rest for ever; and though no doubt all that can be done to make the supply permanent and sufficient has not yet been effected, simply from want of time, I think I may safely say that the water supply of that part of Westralia need, for the future, cause little fear or alarm, and that as the country is opened up to civilisation and to mining enterprise, so will the proper measures be taken, without difficulty, to keep a sufficient supply going permanently and wherever it may be required. Now, gentlemen, I will deal with our accounts. In the first place let me draw your attention to this. In the balance-sheet you will notice that the shares at March 31 stood at 93,296. These shares were not all paid-up at once, but the shareholders, at their own time and at their convenience, have paid-up, in full, from time to time. We have, therefore, worked with really a very much smaller capital, and the return we have made in dividends, and the one we propose now to declare has been earned with much less of the shareholders' capital than is ordinarily the case. In the second case you will observe the item "sundry creditors." These, ladies and gentlemen, have all been paid-off, and, consequently, we have a clean bill as far as debts are concerned. I will not expatiate on the further figures on this side of the account—namely, "balance of profit for period as per profit and loss account." This speaks more eloquently than I can, and I leave those salient and interesting figures to do their duty—namely, to give satisfaction to our shareholders. Turning now to the credit side of the balance sheet, I would point out to you that the sum of £20,000 set against "concessions and mining rights," represents the sum paid for the rights which this company has over the Hampton Plains Estate, and which I will refer to at length later. I believe it is a concession, the value of which we can hardly estimate. I now come to, perhaps, the most important point—the section dealing with shares and debentures in various companies. Your board not only consulted among themselves most earnestly as to how these values should be presented, but also consulted those most qualified to give advice, and most likely to err on the side of caution. After this consideration it was decided to value them when over par at par, and in the very few instances where they are at a discount—I think only one instance—they have been valued below market price. What my opinion is of the absolute value of these securities I do not desire to press upon you, but I am convinced that we have put on them a price far below their intrinsic value. (Applause.) The item "sundry debtors" is referred to in the report, and I need not dwell upon it. Our reserve account is in a healthy condition, and we propose to make it stronger every year. We believe we are the only prospecting company that ever invested in Consols—at least, we were told so at the Bank of England—but we thought it right to invest some of our reserve fund in that manner. (Hear, hear.) The profit and loss account is very clear and easily understood, and I think there are hardly any items in it which call for comment. The prospecting account is not large, as this has been our time of search, and the fees to our consulting engineers are well earned, and I cannot help thinking that having Messrs. Bewick, Moreing, and Co. as our advisers has added great weight to our undertakings. The item in the profit and loss account covers their expenses, so it is not all profit to them. I now come to the perhaps more interesting portion of my address—namely, that dealing with the undertakings which we have initiated, the work done, and the prospects. The most important property that this company has floated was the Hampton Plains Estate. I need hardly enlarge upon the complete success of this issue; but I may say that we are in close touch with the board of the Hampton Plains Estate, that the property is being rapidly and energetically developed, that our interests in that property are most valuable, and that, in my opinion, and in the opinion of our board and those best qualified to judge of the value of those estates, is more or less unlimited, and may in the near future be much greater than any of us originally conceived it possible. The properties which we have also dealt with, and with which we are still connected, are the White Feather Reward Claim, the Mount Margaret, the Menzies Gold Reef, and the Florence. In all of these our efforts have resulted in a distinct success. We have adhered to our policy; we have not over-capitalised them; we have had them thoroughly investigated, and we know that we possess valuable assets for our money. I should like just now to deal with the White Feather Reward claim, as some here may not be shareholders in that company, but are interested as being shareholders in the West Australian Gold Fields. The White Feather Reward Claim is situated about 30 miles north of Coolgardie, and I have taken from the report which was issued on July 23 a few of the salient features, in order to communicate to you what is being done there. I will take the cablegram which came in quite lately. It is to this effect: "We have struck a splendid shoot of gold—north drift from the south shaft. The width of the reef is 2 feet 6 inches. Gold can be seen plainly." Another cablegram, which came in later, stated: "Developments north drift from the south shaft are most satisfactory. Face (of reef) generally assays 6 ounces per ton. The width of the reef is 3 feet; (have) passed through 10 feet of stone, showing gold freely." That, to my mind, is very satisfactory. Then as regards the machinery, the circular states: "The whole of the machinery is now delivered at the mine, and the bulk having been erected, crushing should be commenced in a few weeks." The whole work has been carried out in a thoroughly sound and workmanlike manner, though by so doing the commencement of crushing has been delayed. "It must be remembered that only 11 months have elapsed since the company was formed." With regard to water the circular states: "In our own main shaft, and also in that of the Eagle Claim (which has been acquired by this company) water has been making too fast for hauling, so that operations in this direction have been discontinued until the erection of a winding plant. It is anticipated that the supply will be developed sufficiently to meet our requirements. A suitable site for a dam has been found, and the work is being pushed on with the utmost dispatch. The dam is situated in a good catchment area, and should rapidly fill with moderate rains. Owing to a heavy fall of rain, work on the dam was stopped for a whole week. The rain also delayed the cartage of timber; but, on the whole, the work, although kept back somewhat by the wet weather, is being pushed on as fast as possible." Next, I come to the Mount Margaret, 180 miles north of Coolgardie. With regard to this property, Mr. Backhouse stated that "an underlay shaft has been sunk to a depth of 25 feet, proving the formation and crystalline reef to that depth. Also it has been opened out by stoping on the surface two chains in length—one chain at each end of the shaft—to a depth of 10 feet, where the lode was found to be 9 feet wide. An average sample taken here yielded at the rate of 6 ounces 10 dwts. per ton. On the hanging wall side there is a quartz reef running through the whole formation, and proved to some depth, known as the Crystalline reef. It is about 2 feet wide, carrying gold, freely distributed from end to end. A sample of this yielded at the rate of 40 ounces per ton. Towards the south-west from the shaft an open crosscut has been taken, exposing similar formation. A sample here yielded at the rate of 12 ounces per ton." Then, again, he speaks of the machinery. "The machinery which the West Australian Gold Fields, as stated in the prospectus, were good enough to order well ahead, consists of a ten stamp battery with engine power capable of driving 20 stamps, and all other requisite appliances, the bulk of which is due at Fremantle, the nearest port, on or about the 10th of this month; so you see no time has been lost as regards the shipment of the machinery, and our local director, the Hon. H. J. Saunders, who will arrive about the same time as the machinery, assured me before he left that he meant to lose no time in getting the plant up and at work at the mine." Then he deals with the question of water. "As to the water, I see through one of the Australian papers that there have been very heavy rains in the Mount Margaret country, the whole place being flooded for miles, and the creeks, &c., are filled to overflowing. This was before the beginning of the wet season, and as this has now set in there should be abundant supply of water and feed for a month to come. I cannot but think that the water difficulty has been made a great deal too much of." Then we come to Menzies Gold Reefs, on which district the Florence is situated. These mines are about 98 miles north of Coolgardie, and are, in the opinion of experts, of very great value. With regard to the Florence, perhaps the best information I can give you is the opinion held of this claim by persons competent to judge, and who have visited the claim. A gentleman of experience on many mining fields went into the office of the Florence Company a week or two ago and purchased 1000 shares for cash, and, having secured these, told the managing director that it was the richest claim he had ever seen. I am told the same gentleman expressed a very high opinion of the White Feather Reward Claim. I have dealt with the past and the present, and I now come to the future, which, in my opinion, and in the opinion of those who know much more than I do is, if I may coin a word, a "rosy-golden" one. I said I would speak more at length about the "Concessions and mining rights," and the time has now come to deal with them. At the statutory meeting I explained that we had a concession to select 20 claims of 25 acres each, and 100 acres of alluvial, within the ambit of the Hampton Plains Estate. This concession has now been extended for a further period of two years (making in all five years) to give us time to explore thoroughly, and to develop it. I look upon this as a most valuable advantage, and I am convinced that we shall find assets of great importance and value within the four quarters of that concession, while it must be remembered we have the right to relinquish any claim which we do not consider worth while taking, and to select another within a certain limit of time. The enormous area of the Hampton Plains Estate makes it impossible as yet to know what we have before us; but, as every day reports come to hand proving that gold reefs and ore bodies exist all over the claims, so every day it becomes clearer and clearer that this concession is one of incalculable value. Now I come to another feature which will ere long prove its worth to our company. I allude to the agreement we have entered into to allot Block 45 on the Hampton Plains Estate. Some time ago several very influential gentlemen approached this company with a view to acquiring this option, but they were rather dilatory in their arrangements, and I am delighted to say that Block 45 is still ours, and that within a short time a company will start fully equipped and ready to work one of the finest properties in Westralia. The reports we have received in respect to this property up to now are most satisfactory, and I am convinced that Block 45 will, before long, become a household word among those who believe in and know the richness of that great gold field. (Applause.) The Mount Jackson is the next venture that claims attention. This mine is rather in a different category, for it lies to the north of Southern Cross. We were very anxious to prove it thoroughly before doing anything with it, but now that the reports are so satisfactory, we propose to invite subscriptions in order to work the concessions as soon as possible. I will ask Mr. Stoneham to deal with Mount Jackson. I have now dealt with some of the different properties; there are many others, but before finishing I should like to point out, from the very nature of their position, and the fact that they are scattered over such a large area, they clearly show that the gold-bearing portions of that country are almost inexhaustible, for, of course, there are many good properties in which we have no interest, which join, or are in the same district, or within the same lines. It appears, from the position of the mines already worked, that from north-west to south-east down to the coast there exists one vast gold field. This is in places richer or poorer, as the case may be, the reefs may go down deep as they undoubtedly do, or may, in some places be shallow, or have breaks in them, but that the gold is there is proved by the returns to hand; 72,000 ounces were won in 1892-93, 147,411 ounces in 1893-94, and 239,593 in 1894-95. (Applause.) What is required now is careful selection. This your board will do its utmost to ensure. We think we have the pick of the basket and the shrewdest heads to assist us on the other side. Mr. Saunders is an invaluable counseller, and possesses great knowledge of Western Australia, besides which we have the valuable assistance of Mr. Stoneham and Mr. Moreing here. I need not say more than that. We shall prove the properties before we issue them. We have machinery in store ready to work this or that property, as we hear of its being reported on favourably. Civilisation has touched the plains of Western Australia with her magic wand, and the iron horse is slowly, but surely, going into the very centre of the gold field. Mr. Forrest announced the other day that the railways would be pushed on rapidly to Coolgardie and then to Hannan's, and once there, the development will be abnormal. But not only have we gold to depend upon, we have large interests in the Hampton Plains, and Mr. Lapage, who has been there, speaks most encouragingly of the value of these lands for irrigation purposes and cattle and sheep raising. I believe, gentlemen, thoroughly in Westralia, and more especially in the Hampton Plains and the interests we have there. We have done our best to gain your confidence in the past, and I think when another year comes round, and the great development that I have endeavoured to sketch out has come into effect, and our new ventures are in full working order, that you will agree with me in thinking that I have not been over-sanguine in my forecast. I hope I may be permitted before sitting down to convey to Mr. Stoneham, and to those who have worked with him, especially Mr. Saunders, my best thanks for the efficient manner in which they have managed our affairs. Everyone here owes Mr. Stoneham a deep debt of gratitude, and those who, like myself, have had the pleasure of working with him fully realise how his individuality and keenness of foresight have made our company what I think it may conscientiously be called, the premier company of West Australia. The Chairman concluded by moving the adoption of the report and accounts.

Mr. GEISELBRECHT seconded the resolution.

Mr. MOREING said that the Chairman had so exhaustively treated of the business of the company that there was very little left to be said on that matter. He might, however, say a few words respecting the West Australian gold fields generally, with the prosperity of which the success of the company was wholly bound up. Despite the detractions of many people who knew absolutely nothing about the matter, he was convinced that in Western Australia they had what was undoubtedly the largest gold field that had ever been discovered in the history of the world, and one that was phenomenally rich. (Applause.) There were difficulties in the way, it was true, but these gave them their opportunities, for difficulties existed only to be overcome. The directors had convinced themselves by a careful study of the reports furnished by competent authorities that the gold field was a valuable one, and had set themselves with determination to overcome the difficulties offered by the want of water and the imperfect means of communication. With the consent of the German Government, Herr Schmeisser, the most scientific authority probably in the world, was now on his way to Western Australia to make a thorough inspection of the geological formation; and there was no doubt that his report would in every way confirm the reports already made by other experts. (Applause.)

Mr. ALLEN H. P. STONEHAM, who was received with applause, said that, in connection with Western Australia, the word "boom" had been used. He did not like the word boom, but it seemed to have become part of the English language; in fact, he did not admit that there had yet been any boom at all. There might have been a series of tiny boomlets, but there had been nothing much in the way of solid interest taken in Western Australia yet. He was under the impression that the boom, if any, had, to a great extent, been created by the results of this company's operations. (Applause.) Investors were coming over to their side every day, but not 1 per cent. of those who would come over had yet come. When they did come it was his opinion that there would be such a boom as London had never yet known, and to use an expression that a prominent member of the Stock Exchange made to him, "There will be in the course of the next two or three months such a rise in values all round as will be high enough to take the roof off." (Laughter.) He sincerely hoped that there would not be any such wild speculation as that. It would be a very bad thing for all of them if that were to be case, for if prices rose higher than their intrinsic value there must be a fall, and those who lost money would ascribe their loss to gold mining, instead of ascribing it to the real cause—indiscriminate and injudicious speculation. (Hear, hear.) He maintained now that such improvements had been made in the modes of extracting gold that there was no reason why gold mining should not be recognised as an industry just as much as coal mining. (Hear, hear.) With regard to the properties which the company had in hand, the speaker said that they had a considerable holding in the town properties of Western Australia, which was, in his opinion, an absolutely safe investment, possessing properties which were certain to rise in value very greatly, and almost impossible to fall. They had also a half partnership with the Gold Estates of Australia in the Alpha claims at Menzies, which adjoined the Lady Shenton and the Florence, and were said to have the Deep Levels of those reefs. A report just received stated that "four gold-bearing reefs have been exposed one of which is fully 5 feet wide, carrying good gold." They had also a quarter share in a very good claim on the Marchison District, and he believed it was worth several times more than the company gave for it. They had other claims on the Marchison, known as the New Chum West and the New Chum No. 1 North, and they could now be sold at a considerable profit. (Applause.) With regard to Newman's quartz hill, the company had been strongly advised to take it up. They had to thank Mr. Backhouse for picking up that claim for them. The claim was put under option to a syndicate in London, and Mr. Backhouse reported upon it. The syndicate did not pay a deposit on the appointed day, and Mr. Backhouse promptly secured it for the Gold Fields Company, and telegraphed home. The company had several other claims under option, both on the Coolgardie and Murchison fields, and some of them looked particularly promising; but it would hardly be fair to give their names, as they had not been purchased outright. Their relations with other companies were particularly friendly. If Herr Schmeisser should report favourably on the district, it might be regarded as certain that the Germans would become buyers of Westralians, and would take a wide interest in West Australian shares. There were a good many Germans in the world, and once they began to invest they would begin to colonise. They made good colonists, and he meant to sell them some town lots on Hampton Plains, and South Kensington Estate. (Laughter.) The company's association with the West Australian Pioneer System had been most advantageous to both parties. The Pioneers benefited from this company, giving them a share in the White Feather Reward Claim, and they had now reciprocated by offering a share in a large estate at Hannan's on most advantageous terms. The offer, of course, had been accepted, and Mr. Saunders, in cabling advising the investment, added, "I have taken £2500 myself." The only disappointing matter was Mawson's, and it was curious that this was the only claim that the company's own engineers did not report upon. He did not in the least anticipate that the shareholders would make a loss, and the board was strengthened in that view by the fact that Mr. Mawson himself still held all his shares, and expressed his unabated confidence in the mine. Taking all the investments which stood in the balance-sheet at £88,000, and which on July 9 were worth £144,000, the value to-day was £168,000, and of that extra profit the company had realised more than £11,500 in cash. With regard to the profits,

though he was unable to speak with any certainty, he would not take £50,000 for the profits of the half-year; and so long as the board received the moral and actual support of the shareholders, and found the shareholders willing to supply capital whenever it was wanted, they would have, in effect, the capital of the whole of London at their backs. Upon the next occasion of meeting he hoped to be able to give the shareholders quite as good an account of their stewardship as he had been able to present that day. In conclusion, he might say that he had been loyally supported by the directors, who had cordially co operated with him in every step he had taken. Without this it would have been impossible for him to have achieved such satisfactory results. The position of director of that company was no sinecure; frequent and long board meetings were necessary to keep the work up to date. Finally he desired to bear testimony to the splendid services of the staff on the other side of the world. Mr. Saunders, Mr. Hills, and Mr. Backhouse had all worked very hard in the interests of the company, and were thus entitled to the very best thanks of the meeting. (Applause.)

Mr. BESSEL was of opinion that for a company of that description their capital was insufficient, and he, therefore, suggested that an issue of say 50,000 shares might be offered to the shareholders at £3 premium. (Cries of "No.")

The CHAIRMAN, in reply, said that if it were the wish of the shareholders that that should be done the board would consider the matter, but at present they had no use for the money.

The resolution was carried unanimously, and a dividend and bonus were declared, making a total distribution of 37½ per cent. for the year.

Messrs. Ford, Rhodes, and Ford were reappointed auditors, and votes of thanks to the Chairman, directors, secretaries, and staff erminated the proceedings.

NORTH CHARTERLAND EXPLORATION COMPANY, LIMITED.

A vast and promising territory.—The exploratory expedition already dispatched.

The first ordinary general (or statutory) meeting of the members of the North Charterland Exploration Company (Limited) was held at Winchester House, Old Broad-street, on Tuesday last, the chair being occupied by

The SECRETARY (Mr. W. Cecil Stronge) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—It now becomes my duty as Chairman of the company to say that, as you are aware, the object in calling you together to-day is simply to comply with the requirements of the Companies Act, 1867; and although the limit of time during which the statutory general meeting of the company must be held renders it premature for the directors to be in a position to give you much information as to the position of the company's affairs from the date of its incorporation, we are glad of the present opportunity to be able to give you what we consider, under the circumstances of our brief existence, exceptionally reassuring accounts of the prospects for the future prosperity of our enterprise. You will recollect that the valuable grant which we have acquired from the British South Africa Company, of mining and surface rights, extends over an area of 10,000 square miles of territory adjoining the British South Africa Company's territory on the north, extending to the Anglo-Portuguese frontier line on the south, and lying between the British Protectorate of Nyassaland on the east, and the River Loangwa on the west, and with a view of carrying out the policy recommended in the company's prospectus which was submitted to you, we have lost no time in sending out to our territory a thoroughly well-equipped expedition under the administration of Colonel Warton, availing ourselves, in fact, of the dry season to open up the country for the immediate development, as far as possible, of our mineral resources, and to establish large trading and agricultural centres. With regard to this, I wish to call the attention of the meeting particularly to the very large extent of territory which we have to develop. We entered upon this undertaking with feelings of considerable responsibility and even anxiety, because it is so large a one. At the same time, we feel that we have within this vast territory, marked in the map you now see before you, resources which in course of time will, upon development, yield results most advantageous to this company. From accounts we have already received of this territory, which Colonel Warton, who is now on his way back, has already explored, we have great hopes of getting before very long some valuable results, particularly in the eastern part of the territory, in gold mining as well as in trading, and other things which will hereafter engage our attention. There are resources there which only require proper and careful development to be of very considerable profit to this company. At the same time, it must be obvious to everyone who engages in any undertaking of this kind that it must require some little time before the resources of the country—valuable as they may be—can be turned to the full account. (Hear, hear.) Colonel Warton's expedition, comprising a staff of surveyors, a mining engineer, and trading staff, under the direction of Colonel Warton, sailed on the 13th inst. per *s.s. Athenian*, and regarding which I find that there is an article, with photograph, in this week's issue of the *African Review*. Referring to the indications of success in our undertaking, it is very gratifying to us at this early date to be able to report that an agreement has been entered into with an important syndicate for the sale of 250 square miles of land and 2000 gold mining claims upon terms which may be regarded as very satisfactory, but which, in view of the intention of this syndicate to bring out a company to work the grant almost immediately, I do not think it fair or desirable in their interests to divulge at the moment, beyond saying that we reserve to ourselves intermediate blocks of any claims which they may select. This is, of course, a very important reservation, because when they have claimed any particular block or district we shall step in, and must necessarily participate in their benefit, seeing that we shall be working alongside the n all the time. An important f.ature in connection with the negotiation with this syndicate is that we are given to understand as a reason that their expert, who is regarded as being very familiar with the nature and mining resources of Central Africa, had satisfied himself that we had acquired one of the most—if not the most—valuable tracts of land in that part of the world. We have also received offers through other sources, with the similar sub concessions of land and mining right, which are at present under consideration. I will not take up your time further by reiterating the many reasons for congratulating ourselves upon the acquisition of our grant, as they are set forth in detail in the company's prospectus, as I think that the few facts bearing on the subject of sub-concessions which I have reported to you to-day in themselves speak sufficiently well and hopefully for the future development and success of our enterprise. (Applause.) I would remind you, however, that, owing to the vast area of our grant, comprising as it does over 10,000 square miles of territory, and affording opportunities for the development of so many industries, it is essential that before we can give you any farther details we must wait a reasonable time to realise the expectations the directors feel justified in anticipating in the future. (Applause.) Without wishing to detain you longer, I have in conclusion only to add that I shall be pleased to answer, to the best of my ability, any question that you may feel disposed to put to me as the Chairman of the company.

A SHAREHOLDER: Have all the shares been allotted?

The CHAIRMAN: All.

A hearty vote of thanks to the Chairman and directors was then moved from the body of the hall, duly seconded, and carried unanimously.

The CHAIRMAN, in acknowledging the vote, said: I hope it will be understood that we are engaged in a very large enterprise, which we look at most hopefully; but we cannot do more than promise to do our very best to make this a great success to all engaged in it. But if there is no gold to be found, no trading to be done, or profit to be made, we on the board cannot make it ourselves. All will depend on the administration out there, and we believe that in Colonel Warton, in whom we have the greatest confidence, we have one of the best men possible to undertake such an enterprise, and that if there is any wealth to be got in that vast territory, Colonel Warton is the man to get it for us. (Applause.) I hope we shall have the pleasure of meeting you again, when we shall be able to give you a gratifying account of the position of the company.

ABBOTT'S CONSOLIDATED REEFS, LIMITED.

Preliminary arrangements for working described.—A promising outlook.

The first general (or statutory) meeting of shareholders in the Abbott's Consolidated Reefs (Limited) was held on Wednesday, at Winchester House, the chair being occupied by Mr. J. A. H TRAVERS.

The SECRETARY (Mr. A. R. Hanson) read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen—This company, as you are aware, was registered on April 3, and its object is to purchase and work three mines situated on Moodie's property, some 3 or 4 miles from Barberton. Since this is only a statutory meeting, and there is no business to be transacted, and we are only assembled to conform with the regulations of Parliament, my best course will be to give you a description of the property to the best of my ability; to tell you what has been done, and leave you to form your own opinions as to what we may expect in the future. Of course, it is no business of the board to look into the future, or, so to speak, to pry into the secrets of the earth. They have to work your properties to the best of their ability, and to look forward, of course, to an early commencement of dividends, if possible. The properties in question consist of the Great Scott and Perthshire, about 26 claims, and the Abbott's reef, about 10 claims, making in all about 36 claims. There are, I may tell you—for it is an open secret—negotiations going on with Moodie's to obtain a further block of ground, consisting of some 14 claims, known as Moodie's Reserve, on which considerable work has been done, and which looks like a valuable property. Practically speaking, it can only be worked satisfactorily in conjunction with our property, and we have, therefore, every reason to believe that the governing powers of Moodie's are willing to come to satisfactory terms for handing over those 14 claims or thereabouts. If this arrangement is carried out successfully, your property will consist of some 50 claims, all more or less proved and worked, some very considerably proved and worked, and lying in a sort of horseshoe on both sides of our narrow valley, where they could be very easily and comfortably worked in conjunction with one another. What we may do in the future I do not know, but, at all events, for the present we propose to work them together. In connection with the Scott there is at the head of Highland creek a Sandycroft ten stamp battery with crusher, and so on, complete. In addition there is a Pelton water-wheel, giving power sufficient to work some 20 stamps in all weathers. Probably we shall be able to work it in all weathers, but my experience of Barberton is that, like many other parts of South Africa, and of the world, we are subject there to heavy droughts, and, of course, we may run out of water for a short time occasionally. That, however, is quite a sufficient reason for altering the position of the mill, and putting it close to the mine, so as to ensure a greater speed and economy of working. When you have sufficient water to furnish the motive power of 20 stamps it may seem a mistake, on a mere question of compactness, to move the mill and put it up on a spot where you will have to depend either upon Moodie's electricity for the supply of power, or upon coal. If in the future, however, we see reason to use coal, I may remind you that your property is in an extremely good position to obtain a plentiful and cheap supply. The railroad having now arrived at Barberton; coal can be delivered on your property at about 20s. or 22s. per ton—perhaps even less than that, so that we can work economically if we decide to use coal. For the present it is proposed to overhaul the existing 10 stamp mill, put it in order, and work that for all it is worth, and then at an early period to put up a further 10 stamps, for which we have power there on the spot. If after that we require further power, we can consider the question of using Moodie's electricity or coal. Electricity is a very convenient thing. It can be put up at a comparatively small outlay, because Moodie's undertake the installation, but as we know in England, electricity, though a very good servant, is rather uncertain, and just at the time when you want it most something may have gone wrong with the dynamo or connections, and you are left standing. Another point is that whether you use your battery or not, you have to pay Moodie's for it. With either coal or water, on the other hand, when you are not using it you are not paying. The present position of your 10 stamp battery is about 1½ mile from what you may call the centre point of our mines, and it is proposed to lay down a small tramway, which will not extend to more than 1½ mile—according to our manager it may be a little less—and this will carry the stone from the various adits to the mill. Our manager says that the cost of thus conveying our stone will be about 1s. a ton or under. The tramway can be brought close to the mine, and our manager thinks there will be no difficulty at all about that; in fact, he tells us he has his eye upon a certain tramway which will suit him very well. Then, in addition to that it will be necessary to put up a cyanide plant, because from the previous crushings of stone from different points on your mines, as well as from the general experience of the stone in the neighbourhood of Barberton, the plates will not catch more than a very moderate proportion of the gold that is in the stone, and the tailings will, therefore, have to be treated separately. Of course, in the very short time since the company was registered, we have not made, and could not have made any experiments ourselves, and, therefore, the information that I am going to give you is based upon what has been done in the past by other people. We have every reason to conclude that these reports are quite accurate, and the manager on the spot as well as our agent out there, Mr. Brown, who have both known the mines for some considerable time, agree in believing the reports as to the crushing of the stone, and so on, as being correct. On the Great Scott, which has two adits, and on which there was a drive of 130 feet, and another of 223 feet, there has been much work done. It is estimated there are 150 feet of backs already, and that will be increased the further the adit is driven, because, as you are driving in, you are driving deeper, and you have more above you. Some 1400 or 1500 tons of stone from various portions of the mines were put through one of Moodie's mills, and gave 8 dwts. on the plates, while the tailings were assayed and said to be rich. Then 62 tons from another portion of the mines gave 9 dwts., and a considerable amount of gold was left in the tailings. From my own knowledge—not personal knowledge, but knowledge of mines in the neighbourhood of Barberton—I think it is extremely probable there has been nearly as much gold left in the tailings as there was on the plates, and with a good cyanide plant in practical work you may look to getting three-fourths of the remaining gold out of the tailings. In the Abbott's, on the eastern portion, there are two winzes, and drives have been carried out some 200 feet. The stone there is rather wide. On the western portion, so far it has been proved with an adit, a 60 feet winze and some 100 of driving. The trial crushing is reported to us having given from 4 dwts. to 2 ounces. This is all past history; but if history, it is not like some history, I believe, all imagination, because these are facts, so far as we can ascertain them. The Perthshire is a continuation of the Abbott's reef. From this, so far as we can see just now, no crushings have been taken, but assays to a considerable extent have been made, proving the property to be good. As to the Reserve, if we get it—and you must not count these mining claims before you get them—but I think it is almost certain we shall come to terms with Moodie's and obtain the Reserve; on the Reserve there has been a considerable amount of work done, and it should work extremely well with the other properties, while it would be otherwise for anybody to take these 14 claims and work them by themselves. We are, therefore, in the happy position of waiting until the apple drops into our mouth in reality. The report says that this Reserve consists of 14 claims, and the following work has been done on it. "There is a prospecting drive of about 220 feet, and an adit across the formation, which has been driven a distance of 212 feet, and will intercept lodes at a depth of 150 feet in another 30 feet. This work was done by Moodie's Company. An outcrop of lode has been discovered at about 40 feet west of adit; a winze of 50 feet was sunk on lode. Sixty-two tons were treated at Moodie's mill, giving 9 dwts. off plates." This work was done by Moodie's Company, so that you may take it as quite authentic. I think that is pretty well all I can tell you as regards your property and what is proposed to be done. As regards financial facilities for the working, up to the present time some 6000 of the reserved shares—that is, the shares reserved for working expenses—have been applied for, and, in the opinion of our manager, in the reports he has sent us up to the present time, there has been no indication that even so much as that would be required to put the mine into a working state. So that I think your financial prospects as regards that are good, and, as you see, the quotations of the shares on the market are satisfactory. We, therefore, anticipate no difficulty in placing more shares should we want to do so. That will conclude the business I have to put before you, but if there are any questions that any lady or gentleman would like to ask, I shall do my best to answer them. (Applause.) If there is no further enquiry desired to be made I have to thank you for your attendance here, and to undertake that, as from time to time information comes to us from the other side, it will be communicated to you and to the public in the newspapers. I hope that in a comparatively moderate time you may get within sight of satisfactory returns, which will be the forerunner of dividends. (Applause.)

Mr. CANDLER: Is work being done at the present time?

The CHAIRMAN: It is not being worked at the present moment, from our latest reports.

Mr. CANDLER: You have simply the 10 stamp mill there?

The CHAIRMAN: It is being overhauled. You see the former owners could not work it, and they had not the money to put up a cyanide plant. At one time everything in Barberton went to pieces as nobody would touch a Barberton property. It, therefore, no doubt, fell into the hands of the mortgagees, who did not know what to do with it. Now, however, everything is different, and in the neighbourhood of Barberton there is hardly a square yard you can pick up anywhere. I have been looking for properties for another concern; but now there is a rush, the railway having come, coal mines being at hand and the price of more favoured districts having risen, everybody is turning attention to Barberton.

Mr. CANDLER: You have a manager there, and he is making preparations to get out stone?

The CHAIRMAN: Yes.

Mr. CANDLER: Is any further machinery on order or likely to be on order?

The CHAIRMAN: He has undertaken negotiations for the tramway, and we may be able to treat ore before we get that done. It would be most useful to have our mill in order. The work being undertaken is the preparation of the machinery, and to stope out the stone so as to have it on hand, for it is no use starting the mill unless you have at least one or two months' stone ahead.

Mr. AYNES: I should like to propose a hearty vote of thanks to the Chairman for his address before we separate. (Applause.)

The resolution was duly seconded, and carried by acclamation.

The CHAIRMAN, in reply, said: I am extremely obliged to you. Of course, the four months between the registration and the statutory meeting give you neither time to know much of your board, nor the board time to know much of the work that is doing. I hope, however, when we next meet you will have reason to pass a cordial vote of thanks to your board for something substantial. (Applause.)

The proceedings then terminated.

NAMAQUA COPPER COMPANY, LIMITED.

A highly satisfactory record for the past year.—The copper market in a promising condition.

The seventh annual general meeting of the shareholders in the Namaqua Copper Company (Limited) was held on Thursday, at Cannon-street Hotel, the chair being occupied by Mr. CHARLES HOWARD.

The SECRETARY (Mr. C. Lewis Bennett) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said that although they were not this year again in the position to recommend the payment of a dividend, he might be allowed to express the hope, founded on the general appearance of affairs, and more especially of the copper market, that it would be the last year in which a dividend was not paid. The accounts presented were up to December 31, 1894, and showed a profit of £6874, against a loss in 1893 of £4712, making an improvement for the past year's operations of £11,586, as compared with the previous year. One item to which he wished to refer was that of £3750 for ore at grass. This was a quantity of about 10,000 tons, from which it was estimated that some 2000 tons of 27 per cent. ore would be dressed. The estimated cost of mining this ore, 7s. 6d. per ton, had been principally charged in the mining costs against last year, but a small portion of it had accrued in one or two previous years. They now took credit for it; but when he said the difference between 1894, as compared with 1893, was £11,586, he thought this outside credit should be deducted, which would make the improvement £8000. This result had been obtained in face of the fact that the price of copper had been the lowest on record, they only getting an average of 7s. 2d. per unit for their production. This result was owing to the increased production at the mine. They had 5453 tons as against 3639 tons in the previous year. Then they had a decrease in the transit and other charges, whilst they had got a higher percentage of copper from the ore. In point of fact, the mining and other charges in Africa had been reduced from £9 13s. per ton of ore in 1893 to £8 10s. last year. Before leaving the subject of the 10,000 tons of rough ore at grass, equal to 2000 tons of 27 per cent. of dressed ore, he would point out that valuing that ore at considerably under to-day's market price—viz., 7s. 11½d., and after allowing the credit of £3750 taken in the present accounts, there would remain a credit balance of £6000—that was the value of that 2000 tons—which might well furnish the reserve for 1895—(hear, hear)—leaving the receipts for the ordinary production free of any deduction for reserve purposes. The ordinary production was now at the rate of 500 tons per month, or 6000 tons per annum, and, from present appearances, he thought there was no probability whatever of that production falling off. Captain Phillips reported on February 21 that the mine, as then opened, showed 27,000 tons of ore, which, he read, was practically in sight, or, at any rate, in the stopes that could be worked out. Since that date he spoke of further favourable developments, so that there was no doubt about their mine. The shareholders would observe that there had been a considerable rise in the price of copper. America, which had hitherto deluged them with copper during their two years of almost financial crisis, had ceased exporting copper, excepting in the case of their having to execute past orders, so that they were now not likely to be burdened with exports from America. Moreover, the price of copper in America

was now equal to £55 a ton, so they were not likely to send their stuff to London, where the price for selected copper was from £49 to £49 10s. There was a general consensus of opinion that the copper market would not now recede from the position it had now attained; indeed, some sanguine people thought there would be still a considerable rise in it. As showing the estimate in which the copper industry was viewed in America, the Chairman mentioned that the shares of the Boston and Montana Ore Producing Company had risen from $22 to $99—a significant fact. As to the price of copper, the price of best selected had ranged from £42 in January to £49 in June; but two days ago it was £49 5s., which made the price of the copper from their ore worth about £42 10s. to £43 per ton. Now £40 a ton, on the basis of last year's costs, would give them a profit of £10,000 on 6000 tons of 27 per cent. ore. Five per cent. on their capital would absorb £9434. In conclusion, the Chairman said that the shareholders would see that they carried £5000 to reserve, thus bringing that account up to £11,138.

Mr. JOHN NAPIER seconded the motion, which was carried unanimously without discussion.

The retiring director and the auditors having been re-elected, votes of thanks were passed to the Chairman, directors, and the mining superintendent and staff, and the proceedings terminated.

GEM OF CUE GOLD MINE.

The property being developed in a miner-like manner.—Some satisfactory opinions as to its character.

The statutory general meeting of the Gem of Cue Gold Mine (Limited) was held on Wednesday, at Winchester House, under the presidency of Mr. C. H. TINDAL.

The SECRETARY (Mr. E. H. Young) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—We have called you together to-day rather with the view of complying with the statutory requirements than for the purpose of entering into, at any very great length, any details with regard to the working of the mine. I propose, however, to take this opportunity of letting you know what we have done, what we intend to do, and what are our hopes and expectations for the future with regard to the mine. In the first place, you will be glad to hear that the title to the property is complete, that it has been actually transferred, and is now vested in the company. The next thing we had to do was to appoint a legal representative to act for us in Australia, and we have accordingly appointed Mr. W. Hepburn Gale, who will act in that capacity. We have also appointed the firm of Messrs. Timperley and Gale to superintend the work of the mine. We think, from enquiries we have made, and I believe my colleagues agree with me, that these gentlemen will act in a very straightforward manner, and will safeguard the interests of the company in every possible way. We pay them a fee of £3 a week, which we do not think excessive, for their services. The next thing we had to do was to send out instructions for the future working of the mine; and with regard to these, we were guided very much by our eminent consulting engineer, Mr. A. E. Walton. I do not think I need trouble you at any great length with regard to the general instructions, but it is sufficient to say that we have laid particular stress upon the utmost economy being observed in the prosecution of the works. With reference to the more specific instructions, it is a little difficult to explain them without a plan, but I daresay you will recollect there was a plan attached to the original prospectus. We propose in the first place to extend the underlie shaft down from the surface, so as to get it in a straight line, and place a small hoisting engine at surface. We propose to enlarge the underlie shaft and extend it to a depth of some 200 feet. It is our intention also to strike levels at each 100 feet, and this, I think, will to some extent show, up to that point, what we have before us. What the character of the ore is I am able to explain to you from a cablegram we have received within the last few days from Messrs. Timperley and Gale. There were some 60 tons of ore ready to be crushed, but the public battery at Cue has had so much to do that we unfortunately were only able to get about 25 tons crushed in time for this meeting. The result of that crushing is that the 25 tons of ore have produced 28 ounces of gold. This we consider to be satisfactory, and this class of return we deem to be of a much more permanent nature than anything showing very great richness, because the lode as it goes down improves very much—in fact, the last words of Messrs. Timperley and Gale's telegram are that the lode is opening up well. As to machinery, I may inform you that we do not propose at present to put up any mill. We have a tender before us, but we do not know at the present moment what class of mill our ore is especially adapted for, so we intend to send 100 tons at a time to the public battery, so that they may be crushed there. I may add that we shall only send such ore as will pay for the expenses of transport and so on. We shall leave the remainder of the ore to be treated by our own mill when it has been erected. Concerning the question of water, I do not know that I personally have very much to say, but we have here to-day Mr. Timperley and Mr. Müller, who know the property and the locality well, and, I think, will be able to enter more fully into such subjects than I can myself. There is one other point to which I wish to call attention, and that is that in the instructions we have set out we have asked Messrs. Timperley and Gale to ascertain whether the two adjoining properties, of some 5 or 6 acres each, are able to be acquired at a reasonable price. If they are, we hope to make arrangements to acquire them. Before I sit down I must say I think that if there is any mine that is starting under favourable auspices and with good indications, that mine is the Gem of Cue. (Hear, hear.) We have endeavoured to put it before the shareholders in a perfectly business-like prospectus; we have not gone in for any fanciful padding, and we think that the returns we have already received in the cablegram to which I have referred, indicate that what we stated in our prospectus is likely to be fulfilled. I will now call upon Mr. Walton to further explain these points, which I have just skimmed over, and I think that when you have heard him you will have every reason to be satisfied with the property you have got. (Applause).

Mr. A. E. WALTON, F.G.S., said: Mr. Chairman and gentlemen—Previously to our entertaining the Gladstone property, now called the Gem of Cue, we had heard it spoken well of, and said to be a good mine. We then had reports from Mr. Whitelaw and others, all of whom recommended the property, but to satisfy ourselves, and be sure that the mine was a good one, we instructed Mr. Scannie to make an independent report, and his cablegram and report fully confirmed the others, and was most favourable. We then had a mill test of 33 tons, which gave a result of 1 ounce 3 dwts. per ton, leaving 4 dwts. in the tailings. Since the present company have taken possession a crushing of 60 to 100 tons was ordered, and 60 tons were delivered at the mill, but, owing to the public battery being in such demand, only 25 tons have been milled, and this has yielded 28 ounces, equal to over 1 ounce 2 dwts., a result almost identical with the first run. What is left in the tailings we do not yet know, but we presume it will be about the same as the former. Looking at these results, I consider them highly satisfactory, and believe that in the Gem of Cue you have a good and lasting property, and that the lodes will continue to the deep. Instructions have been sent to develop the mine in a systematic manner, so that the ore bodies may be blocked out and cheaply extracted. So soon as your board receives details as to the best and most economical way of treating the ore, which is at present free-milling, the necessary machinery will be erected, and profitable returns will result. Many companies have erected their plant, and then found that they had to alter it, and we wish to err on the safe side. (Applause.)

Mr. MULLER said that when he was in the Murchison district he went over most of the properties on the field, especially those in the Cue district. He and others who accompanied him inspected most of the claims on the field, amongst others the Gladstone, now called the Gem of Cue. There was no doubt the company had a very good property; there was nothing extraordinary about it, but it was a good property, and, considering the amount of the capital of the undertaking, he was of opinion that it ought to turn out very well indeed. The general idea on the field was that it was likely to be a very permanent property, and to improve in depth.

Mr. TIMPERLEY said he had been on the Murchison field during the last three years, and it was within his knowledge that this mine had been worked for the last 2½ years. Knowing the mine very well, he heartily congratulated them upon possessing it. It was in a very rich locality, and the same line of reef was being worked pretty energetically for about 1½ mile. It joined many well-known claims, some of which had recently been put on the London market, and he had not the slightest doubt that the mine would give a steady return. It was not a very sensational thing, but was one of those reefs called a battery shaft. There was no dollying stone there, and everything that was put through must be put through in a systematic way. He had inspected the reef several times, and it was about 4 feet 6 inches wide, and pretty regular; the character of the country was very good, and working would be easy—very little timbering would be required. As to water, they need have no fear, as there was any quantity on the Murchison field. About a quarter of a mile away they were getting water at 120 feet, and he had no doubt it would be found at about the same depth on this company's property. The directors had been good enough to appoint his (the speaker's) firm as their agents, to superintend the work, and the shareholders might depend upon their doing everything in their power to keep the expenses down, and to bring the mine into a paying position. (Applause.) The speaker added that he was a practical man, having been a prospector, and, in fact, one of the pioneers of the Murchison district. (Applause.)

Mr. JENNINGS asked how many reefs were known to exist on the property, and at what depth they were likely to be cut.

The CHAIRMAN, in reply, said that there were originally two reefs known, and a third had been discovered since they had taken the work in hand. As to the extent to which they had been opened up, according to the plan one shaft was down 75 feet, another 50 feet, and another between 10 and 20 feet; he presumed, however, that those shafts had been sunk to a greater depth since the preparation of that plan. Before the shareholders dispersed, he wished to draw attention to one matter connected with the prospectus. The leading financial papers had alluded to the smallness of the company's capitalisation, and the proportion borne by their working capital to that capitalisation. He believed he was right in saying that their capital was almost the smallest, and the proportion borne by the working capital was almost the largest, of any of the mines brought out in this country. (Hear, hear.)

Mr. JENNINGS moved a hearty vote of thanks to the Chairman and directors, and to Messrs. Walton, Müller, and Timperley for the practical remarks which they had made, saying that it was most satisfactory to hear that the company's prospectus was thoroughly borne out, at any rate, so far. There was no doubt theirs was a good property, and they had a very small capital, and if any of the mines in the Murchison district paid at all he was sure theirs would, and pay very well. (Applause.)

The vote of thanks having been carried by acclamation, the meeting terminated.

RICE-HAMILTON EXPLORATION.

Some of the claims to be sold.—Considerable developments already carried out.

A meeting of the shareholders in the Rice-Hamilton Exploration Syndicate was held on Wednesday, at Winchester House, Old Broad-street, under the presidency of Mr. GEORGE WASHINGTON SMILEY (the Chairman of the company) for the purpose of considering, and, if thought fit, approving an agreement for the sale of certain claims belonging to the syndicate to the Gwanda Gold fields Company.

The SECRETARY (Mr. Norman P. Jaffrey) having read the notice convening the meeting, and the draft agreement,

The CHAIRMAN said: Before proceeding with the specific business for which this meeting has been called, it would, doubtless, be of interest to the shareholders in general to be informed of the present position of the company. As you are aware, the nominal capital of your company is only £16,000. I think I am not taking a very optimistic view of the value of the property you hold when I state that the capital does not represent 10 per cent. of your holdings. Since the last general meeting, held on August 9, 1894, the whole of the capital has been taken up and paid for. The property held by your syndicate at the present time is, in the judgment of the directors, most valuable, and represents very important interests. The syndicate owns in the Gwanda and Selukwe district some 500 duly registered claims and 6000 acres of land which is located in the Gwanda district, a portion of this being on the mineral belt. We also hold an option to locate 200 further claims under most favourable conditions of purchase. The great advantages appertaining to this special grant consist of, first, instead of having to do 30 feet of work on every 10 claims within the first four months, and 60 feet of work on every 10 the following twelve months, we have two years within which to perform the work ordinarily required of others in four months; secondly, we require no inspection certificate to hold the ground, as is necessary under ordinary licenses, after doing the 30 feet of work; thirdly, we can always abandon and re-peg on ordinary licenses, thus relieving our special license, under which we can re-peg other ground, still having two years in which to prosecute the development work. We consider these terms most favourable, and this concession is believed to be the only one enjoying such privileges. In further explanation of the value of the properties your syndicate has acquired, I would state that the claims above referred to are not merely locations, as that term is generally understood, but the value of nearly every block of claims has been demonstrated by the necessary development work in accordance with the laws of the British South Africa Company, and the developments so made have been attended with most gratifying results. You will more fully appreciate the importance of these developments when informed that the work above referred to represents over 1000 lineal feet of underground workings by means of shafts, drives, and crosscuts. I have much pleasure in drawing your attention to recent favourable news to hand respecting the Sabiwa block of mines. This consists of 20 claims in the Gwanda district, and deserves special mention. The Sabiwa has been developed by shaft to a depth of 35 feet, exposing a vein 19 feet wide, assaying from wall to wall 15 dwts. in gold per ton of 2000 lbs. This certainly is a most important development, and tends to prove the existence of permanent and paying reefs in the Gwanda district. The Sabiwa Mine was originally pegged as 20 claims, but we have now further pegged 20 claims as a western extension of the same, making in all 40 claims, giving a continuous run on the reef of over 2000 yards. Dealing with the claims that have been reported upon by Mr. Van Ness, the well-known mining engineer and expert of Buluwayo, the shareholders are fortunate in having become possessed of such valuable property. Taking into consideration the favour accorded Rhodesian mines by the investing public, and the rapid progress attending the march of civilisation you are to be congratulated upon having acquired extensive holdings in a country with so great and promising a future. You will observe from the draft agreement just read by the secretary that under the proposed sale to the Gwanda Company we are only dealing with 200 claims or thereabouts. I now beg to move the adoption of the draft agreement as read. The resolution reads as follows:—

> That the draft agreement for the proposed sale by the Rice-Hamilton Exploration Syndicate (Limited) to the Gwanda Gold Fields (Limited) of certain claims acquired by the former company, or any alterations or modifications as may be deemed advisable by the directors of the vendor company, be approved by this meeting.

Mr. KILBY seconded the adoption of the resolution.

In answer to a question,

The CHAIRMAN said that Mr. Rice-Hamilton was at the property, but was subject to the control of Mr. Wallace, under, whose charge the business was being managed.

The resolution was then put, and unanimously agreed to.

Mr. MANCHOW proposed a vote of thanks to the Chairman not only for the way in which he had presided that day, but also for the very able manner in which he and his colleagues had managed the interests of the syndicate during the short time of its existence. Personally, he thought that the future prospects of the company were most promising.

The motion having been seconded and carried,

The CHAIRMAN, in reply, expressed his thanks, adding that, as in the past so in the future, the best interests of the syndicate would have the closest attention of his colleagues and himself. He suggested, however, that some expression of thanks was also due to Mr. Henry Wallace, who formerly occupied the position in the syndicate which he (the speaker) now held. Mr. Wallace had proceeded to Buluwayo in the interests of the company, almost entirely at his own expense, some six months since. He had devoted the whole of his time and his abilities to the interests of the company, and, in the judgment of the speaker, the very promising position of the syndicate, from a business point of view, was, in a very great measure, owing to the able management of Mr. Wallace.

Mr. DENNY proposed that a cordial vote of thanks should be also passed to Mr. Wallace.

Mr. STEARNS seconded the motion, which was put, and unanimously agreed to.

The proceedings then terminated.

ORIENTAL GOLD MINING COMPANY OF INDIA, LIMITED.

The company well under weigh.—Arrangements for working being vigorously pushed.

The first ordinary general meeting of the shareholders of the Oriental Gold Mining Company of India (Limited) was held on Thursday, at the offices of the company, 6, Queen-street-place, E.C., the chair being occupied by Sir CHARLES TENNANT, Bart.

The SECRETARY (Mr. John Garland) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This is the statutory meeting of the company, required by Act of Parliament to be held within four months of the registration of the company. The registration took place on May 24 last. The capital of the company, as you are aware, is £137,500 in £1 shares. The purchase consideration was £62,500, payable in cash or shares at the option of the directors of the purchasing company. The whole of this sum will be payable in fully-paid shares. I may inform you that 53,823 shares have been allotted, and £53,823 will, therefore, be applicable as working capital of the company, 21,166 shares remaining unissued. As only about two months have elapsed since the incorporation of the company, of course, but little actual mining work has been done. Sites have, however, been marked out for new shafts, and a plan of operations considered and decided upon. A superintendent and staff have been engaged and dispatched to India. Bungalows for their occupation are in course of erection, and soon we may expect to hear of vigorous mining operations being conducted upon our property. The necessary machinery and stores for the commencement of such operations have been ordered. We have nothing new to report to you in regard to the prospects beyond what is stated in the prospectus. We start under favourable conditions, and are sanguine of good results.

A SHAREHOLDER said he had expected to hear a little more information with regard to the prospects of the company, more especially as to when they were likely to commence working.

The CHAIRMAN: I am sorry to say it will take about six months before we can get to work, but we are pushing matters forward as quickly as possible.

Mr. JOHN URE, in proposing a vote of thanks to the Chairman, said it was a pleasure to see Sir Charles Tennant in the chair, and he was sure that so long as he presided over the company its affairs would be conducted satisfactorily.

The vote was unanimously accorded, and the CHAIRMAN having briefly replied, the proceedings closed.

THE VENTURESOME CAPTAIN WIGGINS.—On Monday Captain Wiggins will start on another voyage from the Tyne, across the Kara Sea and up the Yenesei. On his last trip to Siberia, this adventurous navigator met with several serious mishaps, but with his new vessel, the *Lorna Doone*, he expects to get safely through and up the river for about 300 miles. The whole voyage will occupy about three months, and the cargo, which is a mixed one, includes a quantity of machinery to be used in the Siberian gold mines.

A BLUE-BOOK ON THE EXPLOSION AT TIMSBURY COLLIERY.—A Blue-book on the explosion of Timsbury Colliery in February last recommends that the use of gunpowder in coal mines should be discontinued, and Roburite or other flameless explosive used instead. Also that when some places in a mine are admittedly dry and dusty every place in that mine should be considered so for the purpose of shot-firing.

WEST AUSTRALIAN PIONEER SYNDICATE, LIMITED.

A reconstruction to increase the capital.

An extraordinary general meeting of this syndicate was held on Thursday at the Cannon-street Hotel, E.C., the Marquis of Tweeddale (the Chairman of the company) presiding, for the purpose of considering a proposal to reconstruct the company, with a view to increasing the capital and of procuring the elimination of the founders' shares.

Mr. Herbert Moir (manager and secretary) having read the notice convening the meeting,

The Chairman said: Gentlemen—This is really a formal meeting, called to give effect to the policy recommended by the directors at our last meeting, and approved by the shareholders then present. The policy that we recommended then is embodied in the circular which has been in your hands for some days. We recommended that the capital of the company be increased, and that the opportunity should be taken of eliminating the founders' shares. I am happy to say that this policy has received the endorsement of a very large proportion of our ordinary shareholders, and also of our founders, and I am looking forward to its receiving the same support from the gentlemen here present. In a matter of this sort the object to be attained is that all parties should be treated equitably. The founders have their interests and the shareholders have theirs. I think the gentlemen on this side of the table have a fairly equal proportion of both founders' and ordinary shares, and, therefore, we may be considered to be impartial in dealing with the two classes of shareholders; but, besides that, the matter has been referred to our solicitors (Messrs. Ashurst, Morris, Crisp, and Co.), whom you know very well by name, and also to our auditors (Messrs. Cash, Stone, and Co.), and both our solicitors and auditors advise us that the arrangement which we propose is entirely equitable, and to the advantage of both ordinary shareholders and founders. The nature of the conditions is set forth in our circular, and it is, perhaps, hardly necessary for me to repeat them. Still, I may say it is proposed with regard to the ordinary shareholders to issue shares 15s. paid, and to issue to the founders 25 ordinary shares fully paid. Then we propose that the capital be increased to £100,000, and that the shareholders be entitled to subscribe for those shares at par. I think, gentlemen, that embodies our proposal. This is not an occasion on which it would be either proper or desirable that we should enter into details of our proceedings as a company, but I am able to say that since we last met you, not very long ago, we have realised a very substantial profit on our business in hand, which will go a considerable length towards paying a handsome dividend at the end of the year. (Applause.) I do not know that it is necessary for me to say anything more, but if any shareholders wish to ask any questions I shall be happy to answer them. I now move:—(1) "That it is desirable to reconstruct the company, and, accordingly, that the company be wound-up voluntarily, and that Herbert Moir be and he is hereby appointed liquidator for the purposes of such winding-up." (2) "That the said liquidator be and he is hereby authorised to consent to the registration of a new company, to be named the West Australian Pioneers (Limited), with a Memorandum and Articles of Association which have already been prepared with the approval of the directors of this company." (3) "That the draft agreement submitted to this meeting, and expressed to be made between this company of the first part, Herbert Moir, the liquidator thereof, of the second part, and the West Australian Pioneers (Limited), of the third part, be, and the same is hereby, authorised, pursuant to Section 161 of the Companies Act, 1862, to enter into an agreement with such new company (when incorporated) in the terms of the said draft, and to carry the same into effect, subject to such modifications (if any) as he may deem expedient."

Colonel R. P. Nisbet, C.I.E., seconded the motion, which was carried unanimously.

Mr. R. Hoffman said as, probably, the largest holder of founders' shares on the register, he wished to say he thought those holders were being very fairly treated. He always considered that a bird in hand was worth two in the bush, and by the proposal now made they would be sure of getting a dividend every year, instead of having ordinary shareholders standing in front of them. He moved a vote of thanks to the noble Chairman for so kindly steering the ship in the short voyage it had made up to now, and also to the other directors and Mr. Moir, their indefatigable manager.

Mr. J. Crossland Taylor seconded the motion, which was carried.

The Chairman, in reply, said he had no doubt that, when carried into effect, the arrangement now passed would conduce to the prosperity of the company, and when he next met the shareholders he hoped to be able to submit a very satisfactory report of the year's proceedings. (Applause.)

COOK'S KITCHEN.

Amalgamation with Tincroft proposed.

The adventurers in Cook's Kitchen met on Friday, in last week, to consider a proposal to amalgamate with Tincroft on the following basis:—Tincroft to increase the number of their shares from 6000 to 6600, and to give Cook's Kitchen the 600 shares, or one Tincroft share for five shares in Cook's Kitchen.—The Purser (Mr. Walter Pike) presided.

Special reports from Captain R. H. Williams, of Caddra, and Captain John Williams, of Phœnix, had previously been circulated among the shareholders.

Mr. J. C. Daubuz said that at the last meeting the suggestion was for an out and out purchase by Tincroft for £2500. That was not acceptable to the shareholders of Cook's Kitchen, but it was then pointed out that amalgamation on fair terms, if they could be arranged, would be looked at in a different light. Several schemes were suggested, and the one which was ultimately proposed to the Tincroft adventurers was that an allotment of 600 shares should be made by Tincroft to be handed to the committee of Cook's Kitchen and distributed amongst the shareholders. That would give something like one share in the amalgamated concern for every five held in the mine at present.

Dr. Sharpe remarked that, after reading the reports, the amount proposed seemed utterly inadequate. They had for many years been working for a certain object, and just now it looked as if the indications were favourable. They might be able to make better terms if they had a little patience. Personally he was not inclined to accept the terms. If they deferred the matter for a little while they might be able to get better terms elsewhere.

Mr. Bolitho, M.P.: I presume you refer to outside people who might be inclined to buy?

Dr. Sharpe: Quite so, and by particular men, who might take up the relinquished shares.

Mr. Bolitho, M.P., said his cousin and himself had only a small interest in Cook's Kitchen, but they had had the privilege and satisfaction of losing a large sum of money, and they thought there was an opportunity of getting back some of that money. They might go on for ever and ever working as they were now, but unless something like a miracle occurred they had no chance of profits. They had a tolerably large interest in Tincroft, and some people might think that they were only thinking of pecuniary benefit, but he assured them that did not weigh with them in the slightest degree. The object they had was to benefit both mines. He understood that the value of the machinery for the purposes of amalgamation had been placed at £1260, and he was told that the shares in Tincroft were quoted at from £8 to £10. Of course, it might be said that the price had advanced in consequence of the great plum which was likely to fall into the mouth of Tincroft, but if they put it at £8, the value of those 600 shares approached closely to £5000, and that meant that they were getting considerably more than 100 per cent. on the value of their materials. He did not speak from mercenary motives, but he wanted to see the thing put on a proper footing, and he earnestly hoped they would accept the offer that had been made. He honestly believed it to be more than a fair offer.

Captain Josiah Thomas said that in his opinion Tincroft shares were the better worth £12 a share with Cook's Kitchen than £5 a share without it. It would be an immense advantage to Tincroft to take up their levels, to drive into their own sett, and explore the lode immediately, which without Cook's Kitchen sett it would take many years and cost tens of thousands of pounds to do. If there was to be an amalgamation let it be on reasonable terms; he considered 600 shares altogether unreasonable.

Mr. F. Harvey thought it should be borne in mind the proposal to amalgamate originated with Cook's Kitchen shareholders, and not from Tincroft. They were not at all anxious to acquire the sett.

Mr. A. Lanyon considered that unless, as Mr. Bolitho had told them, a miracle occurred—and they not living in the days of miracles except in the Mining Division—(laughter)—there was not much chance of success in continuing as they were now. He should much prefer deriving some benefit from having an interest in Tincroft.

Dr. Sharpe and Mr. J. Holman urgently opposed the proposal.

Mr. Daubuz felt disappointed and dissatisfied with the results which had been obtained there in the past. They had always been told that there was a good time coming, but it had not come yet, and it was high time that a change should be made. He proposed that the offer should be accepted.

Captain Charles Thomas said they were now working on one of the best pieces of ground he had ever seen in the mine, and if tin should rise £5 a ton they would want very little to help them to meet costs.

Mr. Bolitho, M.P., seconded the resolution.

An amendment was proposed by Dr. Sharpe, and seconded by Mr. J. M. Holman, declining to consider the offer.

The resolution was carried by four to three, the remaining adventurers present abstaining from voting.

NEW ISSUES.

BETHANGA GOLDFIELDS (LIMITED).

The capital of this company is £300,000, divided into 60,000 8 per cent. cumulative preference shares of £1 each, having priority as to capital and interest, and 240,000 ordinary shares of £1 each. The vendor has agreed to accept £200,000 in ordinary fully-paid shares, and the present issue is of 60,000 8 per cent. cumulative preference shares of £1 each, and 40,000 ordinary shares of £1 each at par. The object of the formation of the company is—as the prospectus states—"to acquire, develop, and work extensive and valuable gold mining properties, held under leases from the crown, containing 522 acres of auriferous land. Beechworth, the district in which the "Bethanga" Mine is situated, is one of the oldest and best-known mining districts in Victoria. The properties now comprised in the "Bethanga" mine were formerly held and worked under several separate claims, eight mills were at work crushing the ore from the various mines, and large profits were realised by the owners as long as the free milling ore lasted." The properties have been favourably reported on by Mr. Reginald F. Murray, the Government Geologist, who says that "from the information afforded by your assayer, Mr. Coussins, and your mine manager, Mr. Martin, it appears that average ore yields from 1 to 1½ per cent. of copper, and from 1 to 1½ ounce of gold per ton, the proportions of gold and copper being 1 ounce of the former to 1 per cent. of the latter. This applies to the average, but your assayer further shows, as per assay-book, that the various samples assayed from different lodes show yields of from ½ per cent. to 15 per cent. of copper, and from 14 dwts. to 5 ounces 2 dwts. of gold per ton, besides silver, generally in larger quantity than the gold. The experiments made also show the proportion of gold to increase, and that of copper to decrease, as the lodes are followed downwards, and that with increasing depth the different ores become more distinctly classified."

RHODESIA GOLD REEFS (LIMITED).

This company has been formed, with a capital of £75,000, in 75,000 shares of £1 each, of which 35,000 shares will be allotted to the vendor in part payment of the purchase price, and 40,000 shares are now issued for public subscription, for the purpose of purchasing 220 gold claims in Matabeleland, and to develop and deal with other properties which may be from time to time acquired. The prospectus, speaking of the properties, says that they "have all been selected with great care, and are located in the well-known districts of Selukwe, Bembesi, Umsingwani, and Buluwayo, being distributed over a wide area of gold-bearing country. The reefs in question are indicated by extensive remains of ancient workings, consisting of open workings and shafts, which have hitherto been an almost infallible guide to prospectors in the discovery of valuable properties." Messrs. G. F. Hope Johnstone and H. E. Hunter have briefly reported on the various claims, by name, as follows:—"Lockwood: The quartz on the old dumps shows visible freely and pans well.—Tiangashauna: The pieces of quartz surrounding the shaft contain visible gold of a very coarse nuggety character, and are very rich.—Snowball: The dump pans well.—Rachills: The quartz lying on the dumps panning well, the gold being coarse, the stone showing visible freely."

BURBANK'S BIRTHDAY GIFT GOLD MINES (LIMITED).

This company has been started with a capital of £150,000 in 150,000 shares of £1 each, of which 80,000 are offered for public subscription, for the purpose of acquiring the "Burbank Birthday Gift Mine," situated a few miles south of Coolgardie. According to the prospectus the developments hitherto carried out have "established the existence of no fewer than six reefs. The original reef has been proved by the sinking of various shafts and by drives—the deepest shafts being 109 feet—and according to a recent communication, Professor Nicholas states that it has also been exposed by a longitudinal trench, and proved for 240 feet to be 4 feet in thickness, and carrying 3 ounces gold to the ton; one shoot of quartz being equal to at least 20 ounces to the ton. He also states that gold-bearing stone extends (presumably without intermission) over a length of about 1700 feet; or, in other words, about one-third of a mile."

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ALASKA TREADWELL.—Cablegram from Alaska reports the clean-up for the month of July as follows:—"Period since last return 30 days. Number of days mill run 28½ days. Bullion shipped $93,144. Ore milled 22,823 tons. Sulphurets treated 384 tons. Of bullion there came from sulphurets $27,677. Gross expenses for period not yet able to state."

ALADDIN'S LAMP.—The following cablegram has been received from Mr. C. G. Warnford Lock, the new superintendent at the mine:—"The total return for last five weeks is 2560 ounces of gold (approximate value £9280)—namely, 363 tons of ore crushed have yielded 1450 ounces, and 5 tons rich ore have been shipped containing 1110 ounces. The stopes still hold good, The ball mill has been shut down for repairs. Nothing else new."

ALBION MINE.—Cable received, dated Barberton, July 3:—"Developments upon the new lode east level have opened up a fine body of ore. The width of the vein 3 feet, assays 9 dwts. per ton. Underhand stope Albion reef east level assays 33 dwts. per ton."

BAYLEY'S WEST EXTENDED.—The directors have received the following cable from their manager at Coolgardie:—"Reef continues to look exceedingly well."

BROKEN HILL PROPRIETARY.—The London office have received the following cable with reference to the fire at the mine:—"Position, if anything, improved." A further cable received having reference to the fire at the mine:—"No apparent alteration; there is no change in condition of affairs." Further cable received states:—"Price of shares in Melbourne £1 12s. The half-yearly meeting was adjoured until August 8." A further cable has been received having reference to the fire:—"Portion mine affected shut down safely as possible, all crevices filled up. Steam still being forced in. There is enough ore available in different parts of the mine for treating; we are now starting chlorination works, leaching and amalgamating plants." A further cable, dated August 1:—"Decided pump carbonic acid gas into affected parts mine in addition to other efforts carried on in order to extinguish fire."

BROKEN HILL PROPRIETARY.—For the week ending August 1, 3015 tons of ore were treated, yielding 158 tons of lead, containing 61,320 ounces silver. The price of the shares in Melbourne is £1 13s. 3d.

BARBER'S REEF. — Cable received, dated Barberton, July 25:—"Work has been resumed Barber's, July 16; working day and night."

CASSEL COLLIERY.—The directors have received a cablegram to the effect that shareholders at the meeting held on the 30th ult., unanimously confirmed the reconstruction of this company. The company will now be designated the "Cassel Coal Company (Limited)," with a capital of £360,000 in £1 fully-paid shares.

DAY DAWN BLOCK AND WYNDHAM.—The directors have received the following cablegram from the general manager at Charters Towers, giving the result of the crushing for the fortnight ending July 27:—"Tons crushed, 1000; yield of gold, 648; approximate value, £2250; fortnight's expenses, £1782."

DON PEDRO.—The following cable has been received from the mine, dated July 29:—"Line has been intersected in winze below 50 fathom crosscut; boxwork of fair quality."

EAGLEHAWK CONSOLIDATED.—The following assay, dated July 26, has been received from Johnson, Matthey, and Co., of the bulk sample, weighing 33 lbs. of ore recently received from the mine:—"Produce of gold, by direct assay, 120 ounces 15 dwts. Produce of gold, amenable to extraction by cyanide of potassium, 92 ounces 15 dwts. Produce of gold, amenable to amalgamation, 99 ounces 5 dwts. per ton of 2240 lbs. of quartz.

ELKHORN.—Bullion produced in the mill for the week ending July 27, 9500 ounces.

GOLDEN FEATHER.—The following cablegram has been received from the company's general manager at Oroville:—"Will be sluicing débris about the middle of the week. The present situation most encouraging." Extract from letter, dated July 9: "For the first time since the diversion works were completed, we find ourselves in a position to properly open-up and mine out the claim, as now, when it is pumped out, instead of devoting about eight weeks to repairs to elevator, pipes, &c., we will almost immediately get to working in pay gravels, and, in company with all who have been connected with these works since their inauguration, I am positive that this season will demonstrate the great value of the mine, and secure us the wealth and credit our labours and faith have certainly entitled us to."

GOLDEN SPUR (Tasmania).—The following cable has been received from the local manager:—"New Golden Gate have struck reef at a depth of 1000 feet, 25 feet wide, payable in gold." "The New Golden Gate is contiguous to the Golden Spur mine," adds the secretary of the Golden Spur Mines (Limited).

JOHANNESBURG ESTATE.—Warrants have been posted for the 2½ per cent. dividend recently declared.

JOHANNESBURG PIONEER.—Output for last month 1305 ounces.

KABOONGA.—The following is a copy of cablegram received from the manager at the mine:—"Results of washing. Two machines give 51 and 54 dwts. respectively. The gold is coarse. South west level is being vigorously pushed forward."—Official note. The board considers the results of washing so far satisfactory.

LADY LOCH.—The directors have received the following cablegram from the mine:—"Developments splendid. The crosscut to the east has been extended to 130 feet. The stone is equal to the average. We have sunk a winze from this crosscut 17 feet. The stone is worth 8 ounces per ton. In the Lady Forrest the new shaft has been sunk 17 feet. The stone is worth 4 ounces per ton."

MESQUITAL DEL ORO.—The directors have received the following cable from the mine:—"Crushed further 37 tons from Acerada working; obtained 1100 ounces; favourable appearance continuing."

MOUNT MORGAN.—The following telegram has been received from the head office, Rockhampton:—"We pay £25,000 on August 1 being dividend of 6d. per share (free of dividend tax) for the month of July."

MURCHISON NEW CHUM.—The following cable has been received by the directors from their office at Perth:—"Dickinson (mine manager) reports in the full expectation of 1000 ounces from next clean-up August 15, returns should improve consequent upon developments at the lower level promising better than anything yet found on the mine; prospects are encouraging."

NEWHOUSE TUNNEL.—The following cable has been received from Mr. Newhouse, dated Denver, July 26:—"Reached bottom level Eureka; 4 feet ore in drifting. The ore-body continues to improve in quality. Pleased to inform you that I can,

verify all former statements." A further cable, dated Denver, July 30:—"Struck vein tunnel; 22 ounces silver, ½ ounce gold."

NERBUDDA COAL AND IRON.—The sales of coal for the month of June are 908 tons.

OPHIR CONCESSIONS AND EXPLORATION. — The directors have received a cable from Mr. Watts, dated Salisbury August 1, as under:—"Prospecting vigorously carried on. I have taken some more very good property."

OTTOS KOPJE DIAMOND.—Mr. Lisle cables on July 29: "2600 loads washed. 2½ carats per 100 loads. This (average) does not include Saturday's diamonds, wash-up machine not working." The quantity dealt with is an improvement on the preceeding week, when only 1100 loads were washed, whilst the average stated above will be increased by diamonds won on Saturday.

PAHANG KABANG.—A cablegram has been received from the mines reading:—"Prospects are decidedly encouraging. Letter with full details follows by mail."

QUEEN CROSS REEF.—The London office has received the following cablegram from the Queen Cross Reef Gold Mining Company (Limited), Charters Towers, dated July 26:—"In the shaft the width of the reef is 2 feet. Very promising quartz. We are now crushing ore from."

SHEBA.—The following cablegram has been received from the general manager for the month of July:—"1800 tons (2000 lbs) of ore crushed, yield 1708 ounces; 3050 tons (2000 lbs.) of tailings treated, yield 660 ounces; 50 tons (2000 lbs.) concentrates (assay value), 250 ounces; total, 2618 ounces."

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chalmers:—"Produce 10 days 2nd division 10,250 oitavas, equal to 1181·6 ounce troy; value, £3972. Yield per ton 6·7 oitavas (·7722 ounces troy)."

TRANSVAAL COAL TRUST.—The directors announce that the output of coal for July was 33,100 tons.

VICTORIA GOLD MINING ASSOCIATION.—The fortnight's crushing has been cabled as follows:—"436 tons crushed, yielded 787 ounces of gold."

WASSAU (Gold Coast).—The produce of the mine for the month of May last realised £1734 14s. 7d. Ten stamp battery worked 16 days 14 hours, and crushed 281 tons, producing 445 ounces standard, giving a yield of 1 ounce 11½ dwts. per ton. Cablegrams have since been received advising the remittance for last month as 266 ounces bullion, and a yield of 1 ounce 1 dwt. per ton. The falling-off in returns for June is due to excessive heavy rains. During the greater part of that month ore was brought to the mill from one shaft only. Mails just received advise the mine clear of water, and usual remittances may again be expected.

WAIHI.—Bullion return for 28 days ending July 27, £9600 from 2900 tons. Telegram adds: "Tonnage treated is only small at present on account of severe frost."

ZAPOPAN.—A cable has been received from the mine manager, stating that the erection of the battery and pumping machinery is proceeding satisfactorily.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

The Glenrock Consolidated.

A circular has been issued to the shareholders stating that the reconstruction has been accomplished, that all the shares have been placed, and that a working capital of £42,000 has thereby been provided. The circular then gives particulars of the present position and prospects of the company, first of all dealing with the Premier Mine, New Zealand. "This property," it says, "comprises the Premier, Orient, Amante, Queen Victoria, Gladstone, and Sunrise Claims, over 100 acres in extent, together with 30 heads of stamps, tramway and cyanide plant, and up to the present time has produced about £35,000 worth of gold. The property is situated in the well-known Wakatipu gold field, and much attention has recently been directed to the neighbouring mine known as the Achilles. This district has been productive of some very rich mines, as can be seen on reference to the Handbook of New Zealand mines published by the Government, in which the following extract appears:—"The Wakatipu gold field has been one of the richest and most extensive in the world. Gold has been found over an area of 600 miles." Indian Estates.—"This company will take over the estate—about 5000 acres in extent. Recent mail advices strongly urge upon the board the importance of the tea industry, and the success its cultivation is meeting within the district, and efforts will be made to lease a portion of the property for this purpose. The board are in communication with a leading firm of Mincing-lane brokers on this subject" Hampton Plains Estates.—"This company has acquired under contract the right to prospect for gold and silver and take up claims over the freehold territory administered by the Hampton Plains Estate, in the Hampton Plains district of Western Australia, the important developments in which are now attracting wide attention. Under the conditions of the contract this company can select gold mining claims of 25 or 50 acres, in any reef bearing lands within the 216,000 acres owned by the Hampton Plains Estate, and in the event of this company working any claims so selected the Hampton Plains Estate Limited) will be entitled to one-fourth of the profits resulting from such working, and in the event of this company joining other companies to purchase and work the claims the Hampton Plains Estate (Limited) will be entitled to one-fourth of the nominal capital of any companies so formed, such one-fourth to be paid *entirely in fully-paid shares*. In order to facilitate the work, Mr. W. J. Stanford, B.A., M.E., C.E., M.I.C.E., has been sent from New Zealand to at once organise a prospecting party. By a special provision in the contract with the West Australian Government, the freeholds are exempted from all land taxes, charges, or assessments until June 30th, 1905. The programme for working may be summarised as follows:—1. The further development of the New Zealand property in consonance with the recommendations of Mr. G. F. Hosking, who has been appointed manager.—2. The acquisition of mining claims in Western Australia, either through discovery by means of prospecting parties, or by purchase of claims discovered by others, and the development of same, either for our own working or for sale to separate companies or individuals.—3. To assist, with others, in the issue of approved properties to the public, and in guaranteeing or providing the whole or any part of the required capital in the initial stage."

The Golden Link Gold Mining Company.

The following circular, signed by the secretary, has been issued to the shareholders: "The board have the satisfaction to announce that they have already effected sales of two of the mining claims originally acquired by this company in Western Australia. The three mining claims originally acquired consisted of the Ivanhoe South property, comprising 24 acres; the Chaffers claim of 12 acres; and the Golden Link, of 24 acres in extent, making 60 acres in all, for which the company paid £65,000 wholly in fully paid-up shares as the purchase consideration. The terms upon which the sales of the two before-mentioned claims have been effected are as follows: (1) The Ivanhoe South claim has been sold in consideration of a payment of £1500 in cash, and £29,750 of fully paid-up shares of £1 each, to a company registered under the title of the Golden Horse Shoe Gold Mining Company Limited.—2. The Chaffers claim has been sold in consideration of a payment of £5000 in cash, and £10,000 of fully paid-up shares of 4s. each, to a company registered under the title of the Chaffers Gold Mining Company (Limited). The claims thus disposed of aggregate 36 acres, for which the company will receive £6500 in cash, and £39,750 of fully paid-up shares, or £46,250 in cash and shares together, of the companies previously mentioned, and the company remains possessed of 24 acres at an original cost of £18,750 in shares, as well as £23,203 of unissued shares out of its nominal capital of £90,000. Mr. Frederick Bowes Scott, who has had considerable mining experience, has been appointed by the board as general manager and resident engineer, and has been in charge of the company's property in Western Australia since the middle of April last. A small portable stamp battery, consisting of three head of stamps has also been dispatched to the property, and arrived there about the middle of June last. The two companies which have become the purchasers of the two claims before referred to have combined with this company in contributing equally towards the payment of the remuneration of the general manager and the cost of the battery. In regard to the future prospects of the mine the general manager has reported as follows: "The further we drift in a north-easterly direction—*i.e.*, towards the Golden Horse Shoe, the better this (the Chaffers) reef appears. It has, which is rather unusual in the district, two good walls, and the reef matter is not to be discriminated from that in the Great Boulder South reef.

Alaska Treadwell Gold Mining Company.

The superintendent's report on the operations of the company at Douglas Island for the year ended May 15 last, states that during the year there were mined from the adit level 56,484 tons of ore, and from the 110 feet level 184,794 tons, making a total of 241,278 tons of ore mined, at a cost of $132,072, or 54¾c. per ton. Included in the above is the cost of mining and tramming to waste dump about 10,000 tons of slate or waste, of the cost of which no account was kept. The development work done during the year is not so much as usual, as work on the 110 feet level was chiefly confined to making alterations at the loading station, sinking main shaft, cutting ore chutes, and cutting water sumps and pump station. The main shaft is now down to the 220 feet level, and when water tank, pump station, and ore-loading chutes are cut there, a crosscut will be at once started towards the vein. It will take about six weeks completing the work at the 220 feet level before starting the crosscut. If the vein is found, as we expect it to be, at the 220 feet level, it will be good policy to sink to the 330 feet level during next winter. Reserves and prospects—Estimate of ore in sight: Adit level, 164,000 tons; 110 feet level, 2,235,570 tons; making a total of 2,399,570 tons. During the year the mill has crushed 241,278 tons of ore at a cost of $86,710, or 36c. per ton. This year's crushing is the highest on record. The coming year the mill should crush at least 2000 tons of ore per month more than it has heretofore, as we now get a finer grade of ore from the Gates crushers than we did from the old Blake crushers, and, no ore breakers being in the mill, it runs much steadier; the speed of the mill has also been increased about two drops per minute. During the year new foundations were put under 60 stamps of the new mill, and it is the intention to put new foundations under 60 stamps more during next year. The chlorination works.—With the exception of a few stoppages for repairs to furnaces, the works have been fully employed during the year with three furnaces on own ore, and the fourth furnace has been steadily employed on concentrates from the Alaska Mexican Gold Mining Company. During the year there were 4261¼ tons of concentrates worked at a total cost of $37,333, or $8·71½ per ton, or 15½c. per ton ore milled. It is satisfactory to note that the percentage of gold saved this year is the highest on record. The profit and loss account for the year shows receipts from bullion sold, interest, and store profits of $639,696; the operating expenses were $330,162, showing a net profit of $309,534. Dividends have been paid during the year to the amount of $300,000.

Moodie's Gold Mining and Exploration Company.

The balance-sheet and statement of profit and loss for the year ended March 31, including the balance from last year, showed a profit of £2970, and, after writing off £405 for depreciation of buildings, machinery, plant, &c., a balance of £2565 was carried forward to the next account. During the year 8181 tons of ore were crushed by claimholders, yielding 7255 ounces of gold, an average of 17¾ dwts. per ton. The Brighton reef property now stood at 1408, and the board hoped to let out the claims at an early date. The share account had been reduced by the sale of 2000 United Ivy shares, and under this head the company now held 4150 United Ivy and 1500 United Ivy Extension shares. Their holding in Moodie's Pioneer had been cancelled on the liquidation of the company, the assets having just liquidated all liabilities on a final call upon subscribers' shares. The sum of £1700 10s. was paid at the close of the year. All shares forfeited in respect to the previous call had been sold, and, after realisation, a profit of £709 was shown. The works in connection with the electrical transmission of power from the Queen's river were nearly completed. Power was at present being supplied to the United Ivy and Agnes Companies, and would shortly be used by the Ivy Extension and La Fortuna Companies. Applications had been received for more power than was at present available, and the board proposed, if the present installation proved satisfactory, after a few months' work, to add two more Pelton wheels, and make corresponding additions to the plant to provide sufficient power to meet all probable demands in the near future.

Kurnalpi Gold Mining Company.

— The following circular has been sent to the shareholders:—"I am instructed by my board to inform you that the battery for this mine is now on the field, and will be immediately erected and crushing commenced. The mine manager reports that the ore at the bottom of the deepest shaft yields 4 oz. per ton, and development is actively proceeding along the line of reef, whilst there are ample supplies of water and fuel for ore reduction purposes. My directors have every reason to anticipate most satisfactory results from your property."

Consolidated Gold Mines of Western Australia.

Certificates for shares are ready for issue, and can be exchanged for certificates of the Consolidated Gold Mines of Western Australia (old company), the West Mallina, Nicol, and United Nicol companies, at the offices of the company, 151, Cannon-street. It is further notified that in consequence of numerous applications from shareholders to be allowed to pay up in full on their partly-paid shares, the directors have decided to accede to the request.

— The CHAMPION REEF GOLD MINING COMPANY OF INDIA have sold the gold produced in June for £22,698 12s. 10d.

— The NINE REEFS COMPANY have sold the gold obtained in June for £412 5s. 4d.

— At a meeting of the directors of the CHAMPION REEF GOLD MINING COMPANY OF INDIA (LIMITED) it was resolved "That an interim dividend (free of income tax) of 4s. per share be, and is hereby declared, payable on September 12, 1895, to the shareholders on the books of the company on August 22, 1895, and that the transfer books be closed during the said August 22." N.B.—The above dividend is on account of profits made for the second four months of the company's financial year which ends September 30, making 8s. per share for the eight months to May 31 last.

— In terms of Section 32 of the trust deed the ordinary half-yearly general meeting of shareholders in the WORCESTER EXPLORATION AND GOLD MINING COMPANY (LIMITED) will be held in the Town Hall, Worcester, on Saturday, August 10 next, at 10 a.m., for the purpose of receiving directors' report, balance-sheet, and profit and loss account to June 30 last, and for general business. The share register will be closed from August 5 to August 10 inclusive.

— THE MYSORE GOLD MINING COMPANY (LIMITED) has sold the gold obtained during the month of June last, which realised £19,762 2s. 7d.

THE KOOTENAY MINES.

Described by Clarence King, Geologist.

CLARENCE KING, the well known American geologist and explorer, the author of so many delightful books, especially "Mountaineering in California," has been visiting Rossland. He has sent a long letter to the Chicago *Inter-Ocean*, of which we make the following extract:—

"A new and valuable mining field is in process of active development in the mountainous region of British Columbia, the westernmost member of the Dominion of Canada.

"In the latitude of Denver and San Francisco the Cordilleras of North America reach their widest expansion, a breadth from east to west of 1,000 miles. From that region northward they rapidly narrow, until at the British boundary the mountain belt is only 500 miles. Here this compressed mass of ranges is highest near its eastern edge, facing the great plains, and declines in a broken and rugged slope to the Pacific.

"The section lying along both sides of the international line extending southwards into the United States 100 miles, and into British Columbia 150 miles, possesses many points of structural and economic interest. So far the more important mineral discoveries are within British territory.

"Access to the region is gained by the Canadian Pacific Railway, which forms the northern boundary of the mining territory, and the Great Northern and Northern Pacific systems, which skirt its southern margin, besides several hundred miles of navigable waterways, including the Columbia river and its larger tributaries, and several important lakes.

"The Spokane Falls and Northern railroad enters the region from the south.

"Although this is British territory, it is curious to note that nearly all the exploration and discovery is being done by American prospectors, and about all the development by American miners. The British Columbian profit in various ways, but he stands dazed before the audacity and knowledge of the mining adventurers from the States.

"Thus far only a general prospecting *reconnaisance* in force has been accomplished for the whole region south of the Canadian Pacific railway, resulting in the discovery of many valuable and some brilliant mines. But it is already certain that the whole field described is one broad mineralised area. The chief points of demonstrated value are the district of Slocan, in the West Kootenay division—where excellent silver-lead mines are being exploited and where the two metals occur in unusually high percentages in veins, with every evidence of strong extension and permanency—and Trail Creek, in West Kootenay, six miles west of the Columbia and about 10 north of the boundary. At both of these points towns are rapidly building and large permanent works of development are begun. It is the mines of Trail Creek, near the town of Rossland, which for the moment are attracting the widest public interest from the fact that their veins carry an extremely rich and unique type of gold ore.

"Another valuable gold, silver, and copper district is Boundary creek, 80 miles west of Rossland, just within British territory. Still another 'camp' is now the object of a 'rush.' Slate creek, this new gold centre, is in the State of Washington, high in the Cascade range, and but a few miles south of the boundary.

All these are strung along in a single belt of precious metal deposit, which extends from Alberta to the Pacific. They are the first fruits of the new campaign. Enough is already known to warrant the conclusion that the whole of the Province is more or less mineralised.

"As mentioned, the Slocan ores carry higher percentages of lead and silver than those of any district in the United States, and are thus able, in spite of their remoteness, to compete in the smelting market of this country, paying the federal import duty and going as far as Kansas city. Moreover, their abundance is of great importance, in view of the rapid exhaustion of rich silver-lead deposits in the States. At the depressed value of silver and panic price of lead Slocan is still able to produce the two metals at a profit.

"The Trail Creek gold mines were discovered four years ago, but their regular development dates from 1893. Their mineralogical character is so peculiar that a few points of technical interest may be mentioned. From the Columbia river westward extends a chain of ancient outbursts of a dark-green, heavy, and exceedingly hornblendic diorite, an irruptive rock often in other countries associated with occurrences of the precious metals. These mountain masses of diorite are riven in several directions, but mainly on east and west lines, by a numerous series of fissure veins filled with a massive mixture of iron and copper sulphide, carrying from 1 to 3 ounces of gold to the ton, from 5 to 10 per cent. of copper and a small, varying amount of silver, usually less than 10 ounces. The ore consists of pyrite, chalcopyrite and pyrrhotite, not often crystalised, but usually in a solid, amorphous mass. As developed, the veins show great volume, the solid ore free from gangue and ranging from 5 to 12 feet thick. When it is added that the ore chimneys, though not very long, are very frequent and near together, it will be realised that here are the elements of a new and extremely rich type of gold formation. Such ores are obviously out of the range of amalgamation processes, but are entirely suited to matting and smelting. The few hundred tons which have thus far been extracted, largely in the course of development, have been smelted at Butte and Helena, whither they go by the Spokane Falls and Northern and Northern Pacific roads. The smelting results show a remarkably uniform yield, which is found to average about $48 in gold and 6 per cent. of copper. Nowhere else in America are there large, strong veins of this chemical nature. Such ores were heretofore rather a mineralogical curiosity.

"Several admirable mines at Trail have passed the experimental stage, and are now realising an important production."—*The Miner*

NOTES FROM ANDALUCIA.

PAPER ON THE CUPREOUS PYRITES DEPOSITS OF ANDALUCIA AND ALGARVE.

RETROSPECTIVE AND PROSPECTIVE.

Extracts and Notes from Mining Operations and Reports on these during the past 25 years.

By WILLIAM GUTHRIE BOWIE.

INTRODUCTION.

It may be considered as superfluous to again introduce this subject so often ably treated by our foremost experts, but as the present rapid exploitation advances, many entirely new characteristics of these masses are discovered that cannot but compel the former views and hopes to give way to modifications of these, and even opposite ones. Thus there may be some reason to again review the past exploitation of these, and the lessons this should teach us as to their future.

Most have been guided by the theories taught us by our leading geologists and mining engineers, but at last we have to leave their theories alone, and be guided by that which actual exploitation now practically demonstrates, and decidedly accept its teachings as the only present best practical and positive guide for all future operations.

Directors, experts, and mining engineers require some courage in these critical and selfish times to openly reveal the failures of their theories, or those taught them by our masters in the sciences in geology, mining, and metallurgy.

More critical and difficult do rectifications become where immense interests are concerned, especially when such new views, thus practically obtained, point to losses, and at least disappointments and non-fulfilment of more sanguine hopes and expectations, as encouraged by the older theories of our geologists and mining experts. Under such circumstances it is more the custom of those at the front of operations to avoid stating unpleasant truths, and to remain silent, rather than risk the displeasure of the interested shareholders of companies, or if they are mine managers, that of their directors, who have either been mislead by reports of experts, or have other financial operations in view that such truths if made public would prejudice. Many also remain silent, because they fear being involved in adverse criticism of those who are still guided by old theories, which, however obsolete, they will not admit to be fallacious, even in the visible or practical proofs of their fallacy; and, as has been lately witnessed in the African, Indian, and Australian gold mines, too often, in their umbrage, take refuge against the truth by unjust remarks, and far from delicate reflections, upon the expositors of such truths. Combinations are sometimes made between directors and managers, and there are cases of managers guaranteeing 250,000 tons of ore yearly from mines that had not, and still can be seen, to only have a few hundreds of tons in all; yet such reports were published to obtain reconstruction, and subscribers to debentures, amounting to several thousands sterling. Such acts, and the orders to be silent, or retire, &c., are common matters in the past, and like all bad habits, will stick to man also in the future. All countries are alike in this respect, and is true of some British companies in Spain, whose directors have delayed, still delay, and as difficulties increase, fear to publish unpalatable truths they have so long withheld respecting the mines they govern, and linger on, still hoping for improvements either in the mines or in commerce, under the glowing prospects of some favourable statistics, or that of prospects, and promises of the old theories pointing to improvements, which, while also favourable for speculative purposes, always obtain the concurrence and quietus of their shareholders.

Directors, experts, and managers of mines, who are guided by the visible facts and truths, and admit no theorising or speculation in their opinions, complain of unjust treatment by mineowners, shareholders, and company promoters, and that when their reports are not favourable to these parties' views; and no doubt it is due to the dread of being secretly "boycotted," and otherwise injured by many unknown to them, currents of indirect actions, remarks, and unjust criticism of these hidden enemies, that many weaker-minded ones prefer to study the character of their employers, satisfy their caprice and fancies in their reports or operations, and make a study of man rather than the characteristics of the mines they inspect or manage. These are qualified in Spain as "wise men," how to nourish a livelihood and "live" to thrive.

Directors and managers of companies are usually men of standing among their companions, and may or may not be able to afford to make known unpalatable truths affecting the financial circumstances of their companies; also "rank" and "guinea" carry weight, and can say much that others dare not tell their compeers. The public stand much from those who have "handles to their names," and these can afford to go further in making confessions. There is something in glitter even if only tinsel, for there is among Britishers a very great faith—nay, may be called adoration of titles and honours, and we have a constant vanity and craving in respect of badges, garters, and stars. This desire for "show" is even evident in the use made so frequently, apparently as advertisements, of the initials and abbreviations of the names of our associations and institutions, by members of these, while we have much faith, from the same reason, in all foreigners with such titles to their names from other Continental centres of learning. It matters little to us how theoretical or impractial they may be—nay, even if only "dabblers" in these sciences, as cultivating them from mere love of them as amateurs, yet they can tell us much we feel bound to believe, as they carry with these titles the stamp of professionals, and are mostly recognised as such by the public.

Directors must, however, expect to be criticised, and equally so, all experts and managers, no matter what titles they bear, when they endeavour to be just and declare, according to what is fully evident to them, the true interpretation of visible but unexpected changes from favourable to unfavourable conditions of any mines, or their ores, the formerly reported as "very promising of better things;" while their laudable endeavours to be just and true, may, in some cases, be construed to other motives than these, according to the natural and inherent disposition of their critics for similar sordid and selfish operations imputed by them to others, and usually highly predominant in all such critics. All, however, may console themselves (if there is any comfort to be derived from the fact) that the best of our philosophers, men of science, learning, and invention, have their history of opposition, disrespect and neglect, nay, even personal violence, while we now discover their malignant and envious critics to have been, as is always the case where critics are abusive, ignorant, narrow-minded egotists, who have in their malice been incited by their own malevolence to the alternative of being abusive rather than confess the truths of the learned propositions and discoveries of their contemporaries.

It is only under difficulties that our knowledge and sciences have attained their present advances, and truths in geology, mining, and metallurgy can only be attained and progress to better and more perfect views for our guidance, by making mistakes by their discovery, confession, and correction so soon as observed, and their avoidance in the future.

More has been said on this than was intended, but it may be considered necessary, as its object is to show how hard a task it is for directors of public companies to make confession of failures, where great hopes had been excited, as well as the difficulties of experts and managers, under the same circumstances, and the wavering between proper and impartial reports, and incorrect but adulatory ones in respect of mining properties, and how this is very difficult in respect of these cupreous pyrites deposits of Huelva and Portugal and their future. If their directors and managers have been guided by the former views of their geologists and experts, and have over-calculated the potentiality of these properties, in quantity and quality, it is now equally a more imperative duty to openly confess the same to all concerned, and base on safer deductions, learnt from the characteristics of these masses now so fully visible, all calculations, propositions, and expectations as to their possibilities in the future. Surely, shareholders who are such for what the mines can produce, will be none the worse for this, while speculators will be thankful (if true men) that in some instances they have been saved from unintentionally making victims among the public. It will be a great benefit if an end is put to such fluctuations, doubts, and scares, that often have been occasioned respecting these mines, reaching sometimes from as low as one, or the same to 40 sovereigns, up and down, in a few weeks in the price of their shares, as at one time happened also with Rio Tinto. This has caused much hesitation regarding the exploitation of the smaller masses, and lower returns assisting these variations have brought discredit on mining, generally severest and most felt in the smaller mines. While the duty of confessing the alarming changes visible in these masses has been, besides this, also so long neglected is not a pleasing one. Yet there is no reason to fly to the opposite extreme and despair of success or profit, for both are assured for some years yet, if due care be exercised, and while the changes are most serious, yet there is much material in all that can be made profitable by proper treatments, which our better knowledge, and the improved conditions of chemistry and electricity indicate, and which newer and more powerful mechanical appliances in all mining and metallurgical operations are every day providing to enable us to perfect; all which, under skilful managers, cannot fail to make the remaining poor in copper ores yield their content in this metal with marked economy and profit.

That a serious decline in the usual production of copper in the whole of these mines may be anticipated is now beyond dispute; that an ending to their profitable exploitation, under existing circumstances, in a far from anticipated shorter period than formerly calculated, is fully evident, and most true; but it is equally true that great economies can be effected in the exploitation and treatment of their ores; and if in the future fewer tons of copper are produced, there is also evidence that these fewer tons may return as good profits to the shareholders as the larger productions of the past, if skill and care prevail in the utilisation of better appliances and treatments, and sound financial management resounds in every act.

Turning now to the period known as that of

The Revival of Mining in Spain.

a review of the opinions and mining operations then prevailing may be of some interest as having many teachings, which it will be well for all interested in mining not to forget. These embrace the opinions on the geological systems and metalliferous contents; also financial crises, and their results; and the numerous differences of opinions from then to date, and as yet many unsettled problems and questions of considerable importance, as "What is the true geological formation?" and "What the origin of these masses?" yet remain to be answered.

The ancient history of these has been again and again written by many able historians, both ancient and modern, and need not be mentioned, or the traditions and fables that surround their antiquities; but a good description can be obtained in *The Mining Journal*, 1894, pp. 153, 478.

Passing to more modern times, we find much useful information in a work titled "El Minero Español," by Don Narciso Anton Valle, Madrid, 1841; also in the works of Don Lucas Aldano, entitled, "Las Minas de Rio Tinto en el trascurso de siglio y medio," also published in Madrid in 1875. While there are the writings of Señors Ezquerra del Bayo, Rua Figueroa, Casiano de Prado, Anciola, Gonzalez, Cossio, Fausto Elhuyer, and many other eminent authors and actors in these mining zones, finally so far surpassed by the voluminous works of La Comision del Mapa Geologico de Espana: Province of Huelva, by Don Joaquin Gonzalo y Tarin, Ingeniero Jefe del Cuerpo de Ingenieros de Minas, 1888. This last is much used, and all are most instructive, as showing how variable all the able men have been in respect of the nature of these masses, as well as the geology of their surroundings. While should the student desire to study the classical and ancient historians, there are numerous works in Latin or translated to Spanish, and others written in Spanish, of Strabo, Diodorus, Polybius, Justin, Pliny, Agricola, Alonso Barba, Lafuente, Ulloa Cantu, Martinez Pingarron, and others of merit, but too numerous to name, and which supply the curious reader with an insight into the ancient times when the masses were exploited, and the lessons these teach us are many, which even to reproduce here in the most curtailed but intelligent manner, would be too extensive, and the student must find these themselves, and draw from them their own conclusions.

Assuming that all are fairly acquainted with the past history of Rio Tinto, any reference to this "past" may be directed to the others, particularly Tharsis, the history of which is, at the same time, with a few variations, the history of the others.

In 1563 mines were registered for silver at Aznalcollar—probably the present copper and sulphur mines of the Seville Copper Company (Limited), Glasgow, and Caridad, of Cadiz. Then from 1563 to 1569 registrations for lead and silver around Alosno; and it appears from the names of the sites these were the present Tharsis, Lapilla, Huecs, Logunazo groups, and other mines surrounding these.

In 1564 also appear registrations for gold and silver and other metals in Almonester, probably the cupreous and pyrites mines at present being exploited existing in its boundary; while in 1563 were others for silver in Giberaleon—probably the Madronera, Perla, and Atalaya, mines of copper pyrites, which have old works and even traditions as to gold in the rivers around them, and even workings for gold in some lodes of pyrites. In 1566 there were registrations for silver and lead at Castillo de las Guardas; no doubt the cupreous pyrites mine known by that name to-day, and one of the largest and most interesting masses situated in the Province of Seville.

In 1566 there was also a curious concession for gold, silver, lead, and tin, in *termino* of Zalamea, and in 1569 another for working gold, silver, and other metals below Castilla Viejo, in an old cave, of a reddish mineral, and the same beneath a column in a site with five shafts, also in Zalamea, and apparently part of Rio Tinto outcrops; but, not to repeat more examples, the works of Valle and the others are recommended for further information, while by that related it will be observed that up to 1640 all registrations made were for concessions, chiefly claimed to be for gold, silver, and lead, referring to this part of Spain and Portugal, and that these gold, silver, and lead concessions are, in fact, the cupreous pyrites masses and copper pyrites lodes, to-day so largely exploited for copper and sulphur.

No doubt the sixteenth century miner committed the same mistakes as have taken place occasionally with those of this nineteenth century in distinguishing galena and copper or iron pyrites, and, besides, were guided by the presence of lead and silver in some quantity in some sites, and among the large heaps of scoria of the ancient foundries. This finding of silver and lead, as well as copper—apparently as if the object of smelting this ore was for silver—has also misled some mining engineers of that, and later periods, up to recent times that these masses contained argentiferous galena in depth. Gold, silver, lead, antimony, and other metals are found in fair traces in these masses, and the gold and silver are even now obtained by some of the new processes of treating this pyrites, but it is generally allowed that while the ancients no doubt did not neglect the contents of this ore in these metals, yet much silver and lead ore was introduced into these foundries both for reduction for their metals, and also as for fluxes and alloys in some of their metallurgical processes for copper.

From 1824 up to 1852 a great revival of the almost-forgotten industry of mining, neglected here for at least 300 years, took place in all these districts, and in the 28 years from 1824 to 1852, no less than 1050 registrations were made, the year 1843 having alone 344 for mines, investigations, and retreatment of scorias, but most were again abandoned, and only in 1853 do we find any decisive steps taken to retain the concessions, or bring mining knowledge to their investigation, when we find that around the town of Alosno the most important were undertaken, and which to-day are the well-known Tharsis, Lapilla, and Lagunazo Mines, as well as Volcano, Almagrera, Prado Vicioso, Huesa, &c.

The pioneers in registering mines at that period are mostly all living. Among the first was a mining captain of the School of Mines of Almaden, who had been some time in Rio Tinto, D. Luciano Escobar, and some others *vecinos* of Alosno, but Don Ernesto Deligney, Conde de Alosno, came upon the scene in 1853, and with the assistance of these and the information supplied him by the engineers—Don Augustin Alcibar and Don Roberto Kith—was eventually enabled to obtain 63 concessions, embracing all the most important masses, for the syndicate of the Duke of Glucksberg and Caser, then ex-Minister of France at the Court of Madrid. Following hard on these came Don George Ricken, Don Roberto Brunton, Mr. Dalp, Don Manuel Ortigosa, Don Thomas Affenden, and others, while companies and syndicates now began to be formed.

But all these large undertakings had to meet many difficulties, and the history of Tharsis in the year 1854, and those following up to the formation of the Scottish company in Glasgow, is, in common with all the others, one of severe trials, hopes deferred, immense labours, all to every appearance fruitless; great expenses; also diseases and epidemics, especially the cholera of 1854, while to add to these came serious political changes, low financial state of Madrid exchange, bringing in their wake great losses to the Duke of Glucksberg and his associates, while unjust law pleas added to this chain of ills, some of these law pleas like most in Spain where there are "pickings" to be obtained from both sides, lasting many years, and even up to the year 1878.

It is due to the *vecinos* of Alosno, and especially to the late Don Bautista Limon of this town, that the works then in progress were not abandoned, they having supplied funds to carry them on, certainly making a "good thing" out of the transactions, but being men of no mining knowledge it shows their confidence in the engineers then at front of operations, and their confidence of success.

In 1855, the society of the Duke of Glucksberg and Caser endeavoured to negotiate these mines, but failed everywhere, which caused the dissolution of this syndicate. Many attempts were again made afterwards, but there being no mineral found, or anything to indicate the mines to be of any value, to form a new company was very difficult, and eventually the firm of the Rothschilds was applied to, who sent their engineer, Mr. Benoit, ex-Professor of the Escuela de St. Etienne, then considered to be the foremost expert on mines in Europe. This gentleman, after examining the mines, came to the conclusion that, seeing the enormous masses of scorias, and extension of the ancient workings and disappearance of outcrops in great depressions, there could not be anything remaining but "azufron"—*i.e.*, iron pyrites—and some unimportant small veins of ore; hence the Rothschilds withdrew from further consideration of what were then qualified by the name of "Deligney's illusions."

Still the Conde of Alosno stuck to his mines, supported in his opinions by the Spanish engineers, who, with their experience of Rio Tinto, saw in them another mass of ore of the same description; even M. Deligney took over, after this damaging report, others of his brother-in-law—Don Enrique Sergan, and the mines in Algarve, of Sierra Grandolo, and Santo Domingo—while the way he was then bantered as to his "illusions," as his friends humourously called this determination, and his mines, is both amusing and instructive, studied from our present knowledge of all these mines, then his property, and since yielding millions of tons of useful ore. Eventually negotiations were opened with Mr. Eugenio Duclerc, and a provisional company was formed, with the late M. Victor Mercer as Gerente, and although the directors were gentlemen ignorant of mining they were enabled to make some show of success, as the bores and other investigation works had found ore, but not too soon, as they were also on the verge of another failure. After ore was found, its abundance and proximity to the surface enabled them, within two years from its discovery, to have employed daily 2500 hands at the mines, all the carters and *arrieros* it being possible to find in the Province transporting the ore to the port of Huelva, loading 50 ships of various tonnages; while in the year 1857, known as a year of want and misery in Andalucia, by this good fortune they were enabled to employ the whole of the poor population around them, thus remedying their miserable condition. Still difficulties arose, owing to the ignorance of mining and metallurgy on the part of the directors, besides the absence of knowledge of the nature of these masses and the chemistry of their metallic contents. The history of their meetings, assays, reports, orders to the engineers at the mines, and counter orders, and apparent vacillations from 1863 to 1867-8, are very instructive of how excellent properties and mines become ruins and failures, even in the hands of honest hard-working directors, ignorant of their operations and financial management, and show the necessity of technical, as well as general knowledge in mining and metallurgy in order to be practical and successful in mining operations.

These directors being gentlemen of education, but an education that did not embrace any of the sciences so necessary to successful mining, simply fulfilled their obligations, and followed the regulations and routine indicated by their Articles of Association, but were unable to cope with the local treatment of their poor ore, and still less with the sharper purchasers of their ore exported to other lands, particularly Great Britain and

the systems then ruling as to sampling and assaying, and the many "sharp" analysts with whom they had to deal. In all these transactions they encountered heavy losses, while the local treatment of poor ore was still more fatal, which they began in 1857 by calcination in heaps in the open air of 40,000 tons, which reached 160,000 tons in 1860, and in 1864 had treated 540,000 tons by this process, which only returned them 1403 tons of copper, there being only 0·26 per cent. Cu of this metal in that ore, so that either the ore was all but free of copper before calcination, or this calcination had been so badly conducted as to reduce the copper to sulphides or kernels of this; or too much heat had converted the heaps into masses of semi-fused and useless clinkers, which has been often the case in all these mines. This adoption of calcination, then hailed by the land proprietors as a fortune, owing to the payments for damages by the sulphur smoke, which they also thought would last for ever, owing to these masses of ore being reported by the various engineers as inexhaustible, has caused the ruin of agriculture all around these mines, and now that these masses are poorer and not worked the people of the land find themselves without work or land to cultivate, thus now reaping losses where they expected gains.

During this period the French Company spent upon these properties at Tharsis 30,000,000 reals in mining works, 1,000,000 reals in Government taxes, and 10,000,000 reals on the transports and attendant operations following and resulting from the two former. Altogether 41,000,000 reals, or at exchange of that time at least, £430,000.

The losses and difficulties, not only of this French company, but of all the others, paved the way for the Glasgow Company, while the monopoly that Italy had for sulphur was shattered by the acts of her own Government, and completely destroyed by the discoveries of chemistry introducing the utilisation of pyrites in place of Italian sulphur, and thus, again, a combination of circumstances, bringing ruin on these, has caused an advancement in the production of chemicals, or alkalies, hitherto unknown, and upon which to-day the agricultural and commercial wealth of the foremost nations virtually depend, and towards which these masses of ore have been the greatest contributors during the past 25 years, for the losses of these French companies, as well as those of other nationalities, and this action of the Italian Government referred to brought the e masses into repute for sulphur; and the Tharsis Sulphur and Copper Company (Limited), Glasgow, in 1868 began to enter the field, while Mr. Mason in Santo Domingo, and Messrs. Hill in Zidamea, Valverde, and Buitron, had also now began to profit on the ruins of their antecedents, and finally the same conditions prevailing in others, also paved the way for the Seville Copper Company, Glasgow; Dallas Pyrites Company, London; the gigantic Rio Tinto Company of London; the Bede Metal Company, Newcastle, and others, which combined with other auxiliary companies in Andalucia and Algarve, and works arising from their operations in England, represent a capital of £12,000,000; and when we look back and consider how this has been employed upon mines that have been utter ruin to others, and has been employed with profit, where losses had ever resulted before, in local treatment for copper, or export for this and for sulphur, and that on decreasing masses, and in face of increasing difficulties, there is surely a lesson to learn from this display of British pluck, energy, and skill that have so transformed these ruined and lifeless undertakings of their antecedents into those well-famed, active, and successful enterprises; but there is also another lesson to be learnt from the ruin of the others; for again "the future is dark," but with these lessons before us, if we profit by their teaching, there is nothing to fear, while all are thus prepared, and have the knowledge and energy so well utilised in the past, wherewith to face all difficulties in the future, and avoid past misjudgments and errors in all their coming mining, metallurgical, and financial operations.

"The future hides in it
Good hap and sorrow;
We press still thorow,
Nought that bides in it,
Daunting us—Onward."

As we pass along to the present times, it may be of some interest to note the effects of

Ancient and Historical Names,

as influencing greater interest on the part of the public, and causing faith in the wealth of these masses of ore. If we examine the past opinions as to the contents of these masses of ore, it will be observed from the relations made, and those to be found in the works referred to, that gold, silver, lead, and copper were the objects of those who formerly exploited these masses, up to the year 1853, and even then Bible history was brought forward to add to their importance, as has been done in many recent cases, in respect of some Indian and African gold fields, thereby utilising the mysteries surrounding the places whence was derived the wealth of Solomon or that of Sheba's Queen; blending tradition and mining so suitably into the history of the surroundings of these properties, as to work with telling effect upon some minds, and to influence them in their favour and believe in them, so as to form brilliant hopes of their wonderous wealth, based so subtly on these Biblical references, somewhat on the same principle as that old lady did respecting Pharoah's chariot-wheels, fished from the deeps of the Red Sea, according to Marryat's midshipman.

Tradition has given names to sites and streams around these mines, which indicate them as having been sources of silver and gold, while many carrying phonetic similarity to ancient Greek, Roman, Hebrew, and Moorish names are very common around the towns, the ancient mines, and even modern ruins.

Thus the grandeur of the scale on which ancient mining has been conducted here, viewed now as if produced at one spell of activity, the romance surrounding their antiquities, which poetical and romantic minds easily clothe with fable or adventure, or garbage of love and war beyond all measure, that have thus been again and again repeated, and every time more and more exaggerated, that even it is evident some historians, and even mining engineers and experts who have examined them, have been so impressed that at last they have apparently believed in their illusions as realities.

Thus the poet and romancers may play important parts in the mineral wealth of many lands, and even encourage many to invest in their development and exploitation. It has been remarked that the *Iliad* of Homer has sent both the ancient and modern world in search of "extravagances" formed by this prodigy of illusions, and at least made those his contemporaries, and others who followed these mythological times, search for his Elysian fields in Spain, then the last "happy land" and boundary of the ancient mariners' explorations. Has not also romance and its illusions made the imaginative Spaniards picture their country as that giving birth to the gods, while it has also led all foreigners to consider Andalucia as the El Dorado and California of the Romans, where wealth awaited recovery by us from the rocks and ores they could not conquer or manipulate. Every town and village in Andalucia has some wonderful old book, in print or manuscript, the revered treasures of their owners, that pretend to contain all the secrets as to the ancient mines of gold and silver. It may be remarked that many are modern, but none condescend to deal with any baser metal—nothing but silver and gold. Also the traveller, if it is known he is a mining engineer, will find in all some amateur miner, usually a shoemaker or a village tradesman, who is the only and worthy keeper of the secret sites, and the knowledge of where, and this precisely, all the wealth in gold and silver of Solomon was obtained. One instance of such "illusions" may be related, as the actor is still living, and how names are created based on such "illusions" as follows the name, Tharsis.

The hills now called Sierra Tharsis was, and still is, known by its old name Sierra Ensillada; and such a name as Sierra Tharsis is not found in the oldest documents in the archives of Alosno.

The Conde de Alosno (M. Ernesto Deligney) relates, when he first went up this hill in 1853, he met a shepherd, whose articulations in naming some hills, and especially this one, sounded to him like that of the ancient Tharshish, so connected with the fleets of Hiram, and the undertakings of Solomon and his Temple, which, recalling to him the history of the Phœnicians, Carthagenians, and Romans in Spain, he at once adopted the name "Tharsis" for the future name of this mine and all its syndicates or companies. This, while impossible to be the veritable ancient Tharshish, has, if we may be guided by the Conde's reveries and reviews, done much towards enabling the first syndicates to still "hope against hope" during long trials and heavy losses in its investigation, even although this site is seven leagues from the coast, and has not a single vestige of architecture to mark the ruins of a village, much less the site of a large and flourishing city, the emporium of Europe in the days of Solomon, while only scorias in immense heaps indicated the labours of man. Nor do we find a real Bible name in all this district, or in this or other mines, beyond these modern ones thus introduced, all the others being mixed Latin, Moorish, or Spanish ones, with no indication of bearing any relation to the times of Solomon. It may also be remarked that the mines in Spain, and Rio Tinto in particular, were generally governed by Bishops, Archbishops, and such members of the Church of Rome, and this for centuries up to and including the eighteenth. And no doubt their religious zeal, as well as tradition, their financial and political ability, as well as superstition, would easily suggest to them the utility of Biblical names, as is often suggested to others to-day in naming mines and describing mining districts where gold is obtained, or old silver and gold mines are found, and likely to be obtained. All, 'tis said, is fair in love and war, so, in this light, may also be considered the use of Biblical names in mining and its company promotion.

(To be continued.)

THE LIXIVIATION OF SILVER ORES BY THE RUSSELL PROCESS AT ASPEN, COLORADO.*

By WILLARD S. MORSE, Prescott, Arizona.

THE purpose of this paper is to record the results obtained in the use of the Russell process at Aspen, Colorado, covering a period of 14 months, from November, 1891, to December, 1892, during which time over 30,000 tons of ore, purchased outright, on sample and assay, were treated. No explanation of results will be attempted, nor will the chemistry of the process be discussed.

The plant was designed by C. A. Stetefeldt, of San Francisco, and built by the owners by day labour. The entire plant is run by water-power, supplied by a flume 3600 feet long, and a pipe-line 2200 feet long, with a head of 170 feet. A Pelton water-wheel, 8 feet in diameter, is used, from which power is transmitted by wire-rope to the main counter shaft in the mill, a distance of about 250 feet. From the mill to the sampling works, about 150 feet, power is also transmitted by a wire-rope.

A Pelton water-wheel, 3 feet in diameter, supplies power to the dynamo for lighting the plant. The works are located adjoining the Santa Fé railroad tracks, and all ore and supplies are unloaded directly from the cars to the works. The sampling works are provided with crushers and rolls, the latter being used only on samples, and not on the entire ore. The Cornish hand-quartering method is used in sampling ore for purchase. After crushing and sampling, the ore goes to the bedding-floor, where it is made up into mixtures suitable for the mill. The drying plant consists of four Stetefeldt double shelf-dryers, six shelves high, and provided with dust chambers and a stack 65 feet high for draught. These dryers are fired with gas from Taylor gas-producers, a description of which, together with the results obtained, was given in a paper by the writer, read at the Montreal meeting, February, 1893,† and to which reference is made for details omitted in this paper. The crushing plant consists of 30 850 pound stamps, dropping 92 times per minute, with double-discharge mortars for crushing ore, and 10 650 pound stamps for crushing salt. The chloridising roasting is done in a Stetefeldt furnace, provided with very complete dust-chambers, and a stack 165 feet high for draught. The furnace is likewise fired with producer-gas, and the results will be found in the paper referred to above. A cooling floor, 100 by 125 feet, is used for cooling the ore after roasting. The leaching department is provided with seven leaching or ore tanks, 17 feet inside diameter and 9 feet deep; six precipitating tanks for solution, 12 feet in diameter and 9 feet deep; six precipitating tanks for wash water, 8 feet in diameter and 10 feet deep; four storage tanks for solution, 12 feet in diameter and 8 feet deep; and two tanks for the storage of sulphides, 10 feet in diameter and 3 feet deep.

A Johnson filter press, operated by compressed air, and a steam dryer, are used for pressing and drying sulphides. Two Knowles air compressors furnish compressed air for elevating solutions, stirring solutions during precipitation, and pressing sulphides. Two boilers, 54 inches by 14 feet, supply steam for heating the mill and solutions, and for drying sulphides. The following is an explanation of the terms used in this paper:—

"Battery sample"—the sample of ore after crushing, taken every half-hour and assayed daily.

"Top sample"—the sample of ore and salt mixed, taken every half-hour at the top of the furnace, and assayed daily and solubility determined.

"Furnace sample"—the samples of roasted ore taken as the ore is drawn from the furnace, and taken from the shaft of the furnace, the return flue, and the dust chambers.

"Charge sample"—the sample of roasted ore taken when the ore is charged to the leaching tanks.

"Washed ore sample"—the sample taken from the leaching tanks after the ore has been leached with water and the soluble salts have been removed.

"Chlorination"—the amount or percentage of silver that can be extracted in the laboratory by leaching with hyposulphite of soda.

"Extraction"—the amount or percentage of silver that can be extracted in the laboratory by the Russell process.

"Solubility"—the percentage of soluble salts that can be removed in the laboratory by leaching with water.

"Ordinary solution"—a solution of about 2 per cent. by hyposulphite of soda.

"Extra solution"—the cuprous hyposulphite solution of the Russell process.

Ores Treated.

The ores treated were principally from the Aspen district, and the following is the average composition, calculated from analyses made on each of nearly one thousand lots of ore:—

	Ounces per ton.
Silver	27·918
	Per cent.
Lead	2·277
Silica	21·663
Barite	20·924
Lime	10·992
Magnesia	4·245
Iron	10·025
Zinc	2·854
Copper	0·161
Sulphur	8·105

The extremes of each are given below, from the analyses on lots of ore of about 30 tons each. The maximum for each is printed in heavy type, and the other figures in the same horizontal lines show the percentage of the other ingredients accompanying the said maximum.

The total ore treated during the period was 30,856·9445 tons (dry), assaying 27·9188 ounces of silver per ton and containing 861,488·05 ounces of silver. The value was ascertained by sampling and assaying, and was the amount paid for. It was checked by battery weights and daily samples, which showed an average of 27·9806 ounces silver per ton; also by battery weights and calculated value of top samples made daily, which showed an average of 27·9 ounces silver per ton.

Extreme of—	Pb.	SiO_2.	$BaSO_4$.	CaO.	MgO.	Fe.	Zn.	Cu.	S. as Sulphide.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Lead ...	**10·5**	15·0	35·0	6·6	1·2	13·2	1·8	...	0·3
Silica ...	...	**90·4**	...	...	...	2·5	2·2	...	3·0
Baryta ...	1·1	3·8	**76·4**	5·6	1·6	1·3	1·3	...	...
Lime ...	5·0	3·0	...	**40·0**	7·5	2·2	1·0	...	...
Magnesia ...	1·3	12·0	4·0	21·3	**15·0**	3·2	1·8	...	...
Iron ...	0·5	3·0	...	...	...	**44·6**	2·9	...	**45·1**
Zinc ...	4·0	7·6	...	...	...	26·8	**15·8**	...	**51·4**
Copper ...	2·5	15·0	...	...	...	24·9	5·2	**4·7**	**34·9**

Of the 30,857 tons treated, 19,191 tons were sampled by the Taylor and Brunton sampling works, using Brunton's patent automatic sampler, which "checked" with the mill-sampling by hand-quartering within 0·12 ounce of silver per ton.

Dust Loss and Loss by Volatilisation in Roasting.

	Tons.	Silver Assay. Value per ton.	Total Contents of silver, Ounces.
Raw ore	30,857	27·9188	861,488·05
Roasted ore	31,775	24·6289	782,586·09
Loss of silver in ounces.			78,901 96

Or 9·157 per cent. of the total contents.

The above loss includes mechanical or dust-loss in sampling, drying, crushing, roasting, handling on cooling-floor and charging to leaching-vats. Just what proportion of this loss is chargeable to these causes it is hard to determine, but I question if it exceeds 1 per cent. The mill is provided with every appliance for preventing loss from these sources. The dust-loss in drying is reduced to a minimum by the use of shelf-dryers; the batteries are provided with a suction-fan, which forces the dust into a settling-chamber, and the dust-chambers of the Stetefeldt furnace seem to do the work for which they were designed, as the last compartment contained more condensed fume than dust. It is possible that I under-estimate the dust loss, but I think not, when the fact is taken into consideration that samples of dust, taken at various times from the timbers of the mill, never exceeded two-thirds of the assay value of the ore, and the dust caught in the dust chamber of the Stetefeldt furnace showed an average assay value of 18 ounces, against an average of 27 ounces of silver per ton from the shaft of the furnace.

I presume my figures will be criticised by Mr. Stetefeldt, who, I believe, has always claimed that the loss of silver by volatilisation in roasting in the Stetefeldt furnace must necessarily be low, on account of the short exposure of the ore to a high heat; but I have never seen any figures from actual experience to prove this assertion.

Great care was taken to find out exactly what this loss was. For about three-quarters of the time every pound of the roasted ore was weighed while being charged to the leaching-tanks, and during the rest of the time the weight of the roasted ore was estimated by volume, based on the experience gained by actual weighing. The results checked closely with the period when the ore was actually weighed. A further confirmation of the correctness of the figures given is found in the results of a later run of about 8000 tons of ore, where all the roasted ore was weighed, and the loss showed over 10 per cent.

Roasting and Chloridising.

The ore was roasted with 12·2 per cent. of its weight of salt, or 244·4 lbs. per ton of ore.

Furnace Samples.—Two daily determinations were made by taking a sample from each car of roasted ore as drawn from the shaft, return flue, and dust chambers of the Stetefeldt furnace. The proportion of ore taken from each was noted, and assay, solubility, chlorination, and extraction tests were made on each sample. Again, when the ore was charged into the leaching vats another sample was taken, and the same determinations were made, and the increase in chlorination and extraction by lying on the cooling floor was calculated.

From the data thus obtained the following averages have been calculated:—

	Proportion of entire ore.	Results when drawn from furnace. Ounces silver per ton.	Solubility.	Chlorination.	Extraction.
	Per cent.		Per cent.	Per cent.	Per cent.
Shaft of furnace..	53·1314	27·7783	15·4524	43·5355	70·4077
Return-flue	33·0409	25·0434	10·3801	59·1006	83·8121
Dust chambers ..	13·8247	18·3307	17·2105	64·1864	69·8810
General average..	100·	25·4478	13·5072	52·5102	78·4358

(To be Continued.)

* A paper read before the Florida meeting of the American Institution of Mining Engineers.

† Trans., xxi., 919.

— Mr. Alex. J. Ferguson, C.A., Glasgow, secretary of the PEACOCK GOLD SYNDICATE, New South Wales, communicates the following:—"Messrs. Johnson, Matthey, and Co. (Limited), London, have crushed the 20 bags of ore sent home by Mr. Peter J. Mackie from the mine, with the following results:—From No. 1 shaft, Mackie reef, 9 ounces 3 dwts. per ton; from No. 2 shaft, 11 ounces 19 dwts. per ton; and from Ross reef, 1 ounce 19 dwts. per ton."

— The FRONTINO AND BOLIVIA GOLD MINING COMPANY has declared a dividend of 1s. per share, free of income tax, payable to-day, making, with the interim dividend of 1s. per share paid on March 15, a distribution of 2s. per share for the half-year.

FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY (LIMITED).

AT the Half-yearly Meeting of Shareholders held this day, the following Resolution was passed, viz.:—
"That a Dividend of 1s. per Share (free of Income Tax) be this day declared, payable on the 3rd August, to the Shareholders on the register this day, making, with the interim dividend of 1s. per share paid on the 15th March last, a distribution of 2s. per share for the half-year."
By Order of the Board,
J. JAMESON THURAN, Secretary.
No. 184, Gresham House, Old Broad Street, London, E.C.,
July 29, 1895.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

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LOSSES OF GOLD IN VICTORIAN GOLD MINING.

WE have recently been favoured with a copy of a highly-interesting publication, perhaps one of the most important yet issued by the Victorian Department of Mines—namely, a "Report on the Loss of Gold in the Reduction of Auriferous Veinstuff in Victoria." This constitutes one of a series of special reports issued by the Secretary for Mines for the benefit of those interested in mining in the colony. Its execution has been entrusted to Mr. ROSALES, who has incorporated with his report "recommendations as to improvements in the system of treatment, more especially relating to the dressing of slimes." The whole subject is one that is attracting great attention at the present moment in gold-producing countries all over the world; and it is highly interesting to see how our Victorian cousins have attacked the problem. The wildest statements are at times put forward as to the enormous quantities of gold lost in the treatment of auriferous ores, especially by the inventors of new processes or new machinery for ore treatment, who are fond of professing to be able to avoid all such loss, and who are accordingly always going to revolutionise gold milling—but don't. It is, therefore, important to find here an authoritative statement on the subject, which comes from an entirely unbiassed source. It is here estimated that the average loss of gold in the waste tailings of the various Victorian gold fields is between 2 dwts. and 2½ dwts. per ton, and it is pointed out that 2 dwts. per ton on the 898,506 tons of quartz crushed in Victoria in 1894 would amount to about £359,402, being, in fact, 89,850 ounces. This is, no doubt, a sufficiently formidable figure. Still, it must be remembered that the total amount of gold produced during that year in Victoria was 673,680 ounces, so that the value of the gold lost amounted only to about 11·7 per cent. of the total quantity contained in the ore. No attempt is made in the report before us to go into the financial aspect of the question, to investigate to what extent the above loss of gold may represent a gain to the miner as allowing him to treat a larger quantity of material in a given time with the same plant, or to prove at what precise point close saving ceases to become profitable, as costing more than the value of the gold saved. The report has been confined to purely technical and scientific considerations, and must accordingly be judged from that standpoint.

Turning, first, to a table in which the results of the examination of a number of typical gold-saving plants are collected in convenient form, we find a list of some 25 different observations. With the exception of one concern treating tailings worth only 1 dwt. 19 grains per ton, we find that the yield of gold from the ore seems to range from 3 dwts. to 5 ounces, the average of all the mines examined being 18 dwts. 14 grains, although only three of them exceed 1 ounce to the ton. The assay value of the tailings from some twelve of these mines is reported; it varies most widely, ranging from 16 dwts. 7 grains to 9 grains per ton, the average being as high as 4 dwts. 19 grains, or over double the amount given as the average for the colony; it is, therefore, pretty evident that the plants selected for examination for the purposes of this report do not represent the average practice of the colony, and we may surmise that they show something considerably worse than the best colonial practice. The report is, unfortunately, imperfect in many respects, so that it is possible that fuller details, if available, might modify this opinion. The method of investigation adopted was to collect samples of tailings at different stages of the operation, after leaving the copper plates, after the blanket tables, strakes, concentrators, vanners, &c., up to the final point of discharge of the waste tailings, to sift these tailings differentially, so as to obtain the proportions of sand of different sizes in each sample, and then to assay each size separately. Unfortunately, this most interesting piece of work is robbed, to a very great extent, of its value from the fact that Mr. ROSALES has not recognised the importance of stating in each case the size of the holes in the battery screens used. He has contented himself by giving the "number" of the screens—that is to say, the number of perforations they contain to the square inch. This is, however, no guide, except within the widest limits, to the actual diameter of the perforation, and as a means of accurate measurement ranks very little higher than the witness's famous "about the size of a lump of chalk." Moreover, he does even worse than this, when he gives (in inches and millimetres) the size of the mesh of the sieves he used in his sifting operations; as he falls into the curious blunder of tabulating the width of the mesh of a sieve with 100 holes to the lineal inch, as 0·01 inch, and so on; actually forgetting that the wire of which the sieve is made has any thickness at all! It is a very great pity that these mistakes and oversights have been allowed to creep into this otherwise very excellent report. As an example of how the work has been done we may quote the tests on the battery tailings of Johnson's Reef Gold Mines, Bendigo, and of Prince of Wales and Bonshaw United, Ballarat. Of the former the part

retained on	30	mesh sieve	= 4·0	p. c.,	yielded a trace of gold.	
„ „	40	„	= 17·25	p. c.,	„	„
„ „	60	„	= 22·37	p. c.,	„	„
„ „	100	„	= 35·57	p. c.,	„	18·7 p. c., of gold.
passed thro'	100	„	= 17·35	p. c.,	„	60·0 „ „
slime	„ 100	„	= 3·5	p. c.,	„	21·3 „ „
						100·0 „ „

These tailings seem to have assayed 4 dwts. 8 grains to the ton.

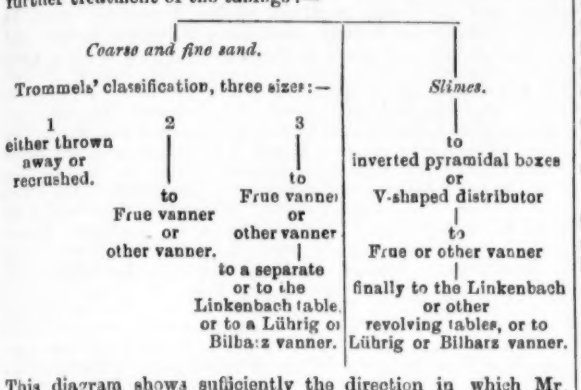
In the latter mine, the portion of tailings

					dwts.	grs.	
retained on	30	mesh sieve	= 12·71	p. c., yielded	0	0·5	per ton.
„ „	40	„	= 8·05	p. c., „	0	0·8	„
„ „	60	„	= 43·97	p. c., „	0	0·7	„
„ „	100	„	= 14·99	p. c., „	2	14	„
p'as'd thro'	100	„	= 20·27	p. c., „	3	6	„

Both these mines seem to have used the same screens in their stamp mills—namely, punched with 140 holes to the square inch, but as already pointed out, this is not conclusive proof that the diameter of the perforations were really the same in both cases.

The volumetric sizings and assays show that in the first case 43·6 per cent. of sand retained on the 60 mesh sieve is worthless, and that all the gold is concentrated in the fine material that has passed through the 60 mesh; the same appears also in the latter case, in which practically the whole of the gold is contained in that part (35·26 per cent.) of the tailings that has passed the 60 mesh. These two instances are typical of all the investigations. The coarsest part of the battery sand is found to be practically worthless, and the gold is contained in the finer part, and in the slimes. This being established, it next becomes necessary to see how this gold is to be saved as far as possible. Amalgamation is, of course, always the first stage, and it is interesting to notice incidentally how firmly Victorian millmen still stick to their old-fashioned system of mercury wells, although this system has been pretty thoroughly discredited in most other parts of the world, and is now practically abandoned by scientific millmen. We do not see that Mr. ROSALES has drawn attention to this point, though he does very properly recommend the general adoption of inside amalgamation—that is of charging mercury into the battery box; he does not, however, make clear, as we could wish that he had done, whether his recommendation ex-

tends to the employment of inside copper plates as aids to the process of inside amalgamation. Finally, we may note that it is even to-day necessary for him to insist on the advantages of automatic ore-feeders as against hand-feeding, a point on which no gold miners outside Australia to-day need a single word of advice. We may note, however, that of 23 mills examined only two are reported as using automatic ore feeds; this statement alone suffices to show how far behind the age Victorian gold practice must be. After leaving the copper plates, the battery sands may be passed over a percussion table and blanket strakes; the battery tailings raised, where necessary, by means of a sand pump, and the slimes separated by means of slime separators, the latter being by preference some suitable modification of the V box. The following diagram, which we reproduce exactly, shows the series of processes which are recommended for the further treatment of the tailings:—



This diagram shows sufficiently the direction in which Mr. ROSALES is looking for improvements in gold saving, and we will venture to say that few experienced millmen will differ from his broad general conclusions. In matters of detail we think, however, that his scheme is capable of very great improvements. Blanket strakes are surely an anachronism when combined with the other gold-saving appliances, especially if, as here recommended, the blanket sands are to be treated by amalgamation in a pan. This treatment can only mean that the amalgamation in the stamp mill is not being properly carried out, and must lead to the sliming of a large proportion of valuable sulphurets. Again we fancy that the majority of millmen would rather support our view that the plant for classification should precede the percussion tables, and not follow them. We would rather ourselves place the slime separators immediately below the copper plates, or the mercury traps, if such are used, and then size the tailings first by spitzkasten or spitzlütten, followed by trommels for the coarser sands, sending the coarsest parts to the percussion tables, and treating the finer portions and the slimes as above indicated. The report before us is particularly rich in descriptions of appliances well adapted for the treatment of fine sands and slimes, to which points particular attention seems to have been paid. It is, however, curious that so markedly little is here said respecting the chemical processes for tailings treatment that have attained such pre-eminent importance in South Africa. We are left entirely in the dark as to whether experiments have or have not been tried in this direction, or whether these processes have been proved to be unsuitable for the gold ores of Victoria. Surely nowadays the cyanide process is too important a means of saving gold in tailings to be disregarded entirely.

We cannot conclude without adding that whatever the merits or demerits of this report may be—and we have tried to show that the former very far outweigh the latter in our opinion, although we venture to differ from the author on several points—the production of this laboriously-compiled volume is in every way a credit to the Victorian Department of Mines, which is evidently doing all that lies in its power to raise the standard of gold-milling practice in the colony. It is abundantly evident incidentally that Victoria is in this respect very far behind other countries which are yet very much younger gold producers, and it is only by publications such as the one now before us that the Department of Mines can hope to train millmen in the scientific practice of their profession, and to save it from the rule-of-thumb practitioners to whom it has too long been abandoned.

GEORGE AND MAY AND WEST RAND MINES.

IT seems to be quite the fashion now to amalgamate. Especially is this the case with South African properties. Almost weekly we are hearing of some fresh scheme, so necessary does amalgamation seem to be for the success of most of the leading companies. That between the George and May and West Rand Mines has been in the air for some time past, and seems to be regarded with much favour and hope. It is certainly the wisest thing that could be done for the benefit of both concerns, and already those connected with the companies are building great hopes upon the ultimate results. As for the George and May, it cannot be asserted that its career up to the present has been conspicuously successful. No evidence has been furnished as yet of any great richness, but, perhaps, it is too early to look for such proof. The company was first formed in 1887, crushing commencing in February of the following year, with a 40 stamp mill. This continued until March, 1892, when operations were suspended. Crushing was recommenced in April, 1894, with 30 stamps and a cyanide plant, but in November of the same year the mill was shut down for three months for further development. During 1888, 1553 ounces of gold were obtained, and during 1889 the yield decreased to 1011 ounces. During the following year, however, the yield rose to 2389 ounces, and in 1891 to 3335 ounces. In 1892 only 684 ounces were produced, and in 1893 2041 ounces. Last year, however, the yield increased to 8939 ounces, which, although not a large yield—even considering it was for only nine months—was certainly promising and encouraging. The average from April to October was over 1100 ounces a month; but in November the yield dropped to 439 ounces, and in December to 274 ounces. As for the results of the first six months of the present year, the least said about them the better. In no month has the yield reached 1000 ounces. It will thus be seen what a great benefit the George and May is likely to derive from the amalgamation scheme. Although the latter is not yet matured, nevertheless the more important details are practically settled. The capital of the new company will be £500,000, allocated as follows:—George and May, 105,000 shares for 101½ claims; West Rand Mines, 300,000 shares for 440 claims; working capital guaranteed at £2 by ROBERT WILLIAMS and Co. and the West Rand Mines, 50,000 shares; reserve, 45,000 shares; total, £500,000; 541½ claims. Besides the 440 claims, the West Rand Mines will bring in, says the *Standard and Diggers' News*, £100,000 cash, and will further guarantee 25,000 shares at £2 per share, ROBERT WILLIAMS and Co. guaranteeing the remaining 25,000 at the same price. The total working capital will, therefore, amount to £200,000, with 45,000 shares held in reserve. "Taking the 541½ claims and total capital to be issued," says our contemporary, "irrespective of reserve, the ground is put in at under £1000 per claim, which is a low valuation, and should admit of an after-appreciation in the price of shares."

The directors, in their report submitted on August 24, 1894, stated:—"Much depends on the value of the South reef, and so far the results from sampling are extremely satisfactory." This is confirmed by tables published by the *Standard and Diggers' News*. Introducing these, the writer encouragingly remarks:—"The same rich reef which runs through the Champ d'Or passes through this property, and, although thin, is good enough in quality, and when economically worked, will yield handsome returns. The Main reef in the lower levels is also looking promising."

In a somewhat detailed report upon the mine, which is likewise published by our contemporary, the writer pertinently observes:—"I have not the least doubt that the only profitable way of working the free milling portions of this reef is by dry-crushing and treating direct by cyanide. All ore over 5 dwts., I consider, will pay on the following conditions:—A suitable plant must be provided for screening and crushing. The appliances at present possessed by the company are not conducive to extracting the gold. I am submitting a drawing to you capable of reducing any ore, and able to give good extractions. One thing is certain, that to attempt to treat free milling Main reef by stamping will lead to very unsatisfactory returns, such as the mine has already experienced. In proof of this, I have only to call your attention to the fact that, while you were milling, the ore value going to the mill was 11 dwts. 14 grains, and the gold won from the battery was only 5 dwts. 6 grains. The water from the large dam was caught as it was being pumped to the mill reservoir; about 36 gallons was taken and settled by the aid of lime, the residues from this assaying 5 dwts. 12 grains. It is evident that a quantity of fine float gold is lost in the water by this method of treatment. Therefore, I propose the working of all free milling ores by dry crushing, with the exception of the best part of the Main reef. I should like the latter to have a thoroughly practical test before deciding in favour of either milling or dry crushing for this. The way of working the South reef is to carry a stope as narrow as possible, pass the whole contents over a sorting belt and pick out not less than 30 per cent. of the waste rock. I should recommend the exploitation of the Main reef from it, as it will be found that large bodies of Main reef ore will be met with over 5 dwts. value, which will pay. Also the top level of the South reef could be treated direct."

It is well known that for some time past a number of experiments have been made in dry crushing and cyanide treatment, and these have been so successful that plans are being formulated for the erection of a complete plant to treat a large quantity of stuff on this system. "The incentive to do this," our contemporary observes, "is that there still remains in the mine some 263,000 tons of oxidised Main reef alone, which is amenable to this system, and which may be expected to yield profits varying from 5s. to 7s. per ton. . . . With a suitable plant carrying on work upon a reasonably large scale, it is quite probable that working expenses could be brought down to 10s. 6d. per ton, which would leave good profits on rock from which 5 dwts. of gold per ton could be extracted." It will thus be seen that there are a great many difficulties to overcome, and many problems to solve in connection with this company. To do this successfully plenty of capital is necessary, but as this will be amply furnished under the amalgamation scheme, the company have every encouragement to look forward to the future hopefully.

NOTES AND COMMENTS.

MR. RICHARD DONAGAN furnished the shareholders in the Frontino and Bolivia Company, at their annual meeting on Monday, with a statement as to the position and progress of the mines, both in relation to plant and developments, fully as complete and detailed as the proprietors in the companies of which he is Chairman are by this time accustomed to receive. Starting with an elaborate computation of the gold product for the half-year, and comparing it both in the bulk and as to profits with past periods, he proceeded to narrate the recent history of the works at each of the separate properties, and concluded with a comprehensive glance at the company's finances, more especially in relation to the reserve fund and the rates of dividend. From the Chairman's narrative it appears that the proceeds of the gold sales and the value of the sulphurets give a larger return, with two exceptions, than any previously realised. The exceptions noted are in themselves by no means unsatisfactory in their bearing upon the half-year under review, for, despite the shrinkage in the actual output, the profit works out advantageously in comparison with any previously won. The policy of the board is directed towards the dual purpose of maintaining the present returns at a good figure, and at the same time ensuring, so far as possible by works of development, that the mine may be in a position to yield progressively in future years. Several things have occurred recently to hamper the staff in South America, and to prejudicially affect the returns. Beyond the revolution itself—which did not issue in any actual molestation of the property, although those of the miners who did not escape impressment by flight were commandeered for service—the axle of the Silencio mill broke, and occasioned a stoppage of something over a week, while the prevalence of a severe drought has certainly militated somewhat against the company.

AMONG the particulars of the improvement which is constantly being effected by the management in the company's plant, may be mentioned the addition to the water-power that will follow upon the acquisition of a right over half the Tias stream that flows near the property. The way is now paved for a considerable extension of the company's new mill at Salada, and the supply to Cordoba will be usefully supplemented. The possibility of developing a considerable electrical power by using the water flow of the stream at the bottom of the company's property has been thought out, as we are assured by one of the members of the board, whom frequent visits to South America have made thoroughly conversant with the contour of the country and its possibilities for working. Moreover, steam is already upon the point of supplanting water as a pumping and hoisting power at Silencio. It will thus be seen that the object avowed by a member of the directorate at the recent meeting—the keeping of the mine "up to date," as the phrase goes—has borne considerable fruit in the past, and may lead to the expansion of the company's operations in the future. A chief point in the fiscal policy of the directorate is the maintenance of a good reserve fund to strengthen the whole position of the company, to provide against the construction of any considerable improvements that may be necessary or advisable in the future—though, certainly, the reserve fund is not drawn upon under the present system to meet any minor contingency that may arise—and last, but so far as the shareholders are concerned a highly important matter, the equalisation of the dividend payments. The policy already initiated, and thus clearly avowed, has received the cordial and unanimous assent of the shareholders, who are keen-sighted enough to see the wisdom of sacrificing some little present advantage for the sake of the permanent stability of the undertaking in which they are interested.

THERE is jubilation in the mining community of British Columbia over the undoubted progress of the industry in the new colony during the last six months, wherein its mineral production amounts to a very respectable figure, entitling the district to more than passing attention among the various metalliferous portions of the American continent. From the local point of view, the most satisfactory feature about the recent increase is that it rests upon the solid basis of quartz mining. The figures for the closing half of the year are being looked forward to with a hopeful confidence on the part of the colonists, who believe they will swell the totals for 1895 in a satisfactory manner, and continue the high average of yield which the earlier months have begun. This sudden growth of mining in the colony must be very good news for the colonists themselves, for it is obvious how the whole prosperity and condition of life prevailing there will be affected by the slow and steady growth of so important an industry.

THE exhibition mania—for it is a mania, though of an amiable type—has penetrated even into retardist, exclusive, Russia. Next year there is to be a "monster exhibition" held at Nijni-Novgorod. From the fact that the cost of the lighting, railway, and balloons is expected to reach the grand total of £20,000, it will be seen that the word "monster" is used in a relative sense, for the purpose of stamping the show as the greatest ever held within the dominions of the White Czar. By what process of psychological gestation the Russian mind has evolved this idea of an exhibition it would be barren to enquire. Perhaps the larger party to the most recently consummated Continental alliance are proposing to keep their hands in for the great event of 1900, when all the wealth, culture, and intellect of the globe will, it is hoped, be not unworthily represented along the banks of the Seine; and if that were so, it would be a good thing. In any case, it is obvious that the affair is going to be carried off with some *éclat*. The exhibition and town are to be flooded with electric light, while visitors will have the advantage of an electrical railway, and a service of balloons to pass from one side of the Volga to the other. The affair is very welcome as showing that something of the modern spirit has begun to manifest itself in the Russian empire. It is the leaven that may be expected to spread, and, though slow of working, may eventually produce effects not unimportant.

THE perverse reticence—for so in the colony it is deemed—which the bank managers of Coolgardie are observing as to the amount of gold sent out of the district, is arousing the ire of the mining Press, who do not see the policy of having the Coolgardie light hidden under a bushel. The regret at this course of procedure is made all the keener by the opportunity of comparison; for the Murchison men adopt a widely different tactic, and are only too glad—and naturally so—to let the world know the precise quantity of gold they have been able to dig out of the ground. The natural result, according to the local journals, is the undue booming of the Murchison, and a similarly unjustifiable slighting of Coolgardie. From the outside point of view, it must be readily admitted that paragraphs describing a gold escort from a colony to the coast are apt to read well, and to draw a favourable public attention to the gold field in question. An advertisement of this kind is something to lose, for the best gold field on the globe's surface is dependent upon capital for its proper development, and so

indirectly upon securing popular favour. There may, on the other hand, be reasons which do not appear on the surface, prompting the bank managers to take the course so severely condemned.

The American journals are complaining, with some bitterness, of the effects produced in the market for mining properties by the innuendoes and dark hints dropped on all hands by persons inimical to the vendors. Many a property, it seems has had its chances of ultimately finding a purchaser ruined by the ill-advised remarks, made with an air of mysterious wisdom, by badly-disposed people. There is, of course, a general disposition to recognise the enormity of putting on the market and puffing a dust-heap, as if it were a Forreira; but the covert attacks alluded to are said to be frequently directed against solid and valuable undertakings, promoted with honesty of purpose. Needless to say, the slanderer generally has a little property of his own on hand to dispose of at a phenomenally cheap rate, and he is afraid that the success of other ventures may direct public attention from his own. Hence his easily-explicable but dishonest attitude of hostility towards other undertakings sought to be floated in the same district. Many a mining town and camp has had to regret the prejudicial effects of this evil.

An idea—not altogether a new one—which, if carried into practical effect may be of considerable benefit, not only to the mining profession, but to the investing public at large, finds sponsorship in the *Denver Mining Review*. Every trade, profession, and calling has its peculiar organisation to-day, and the honourable fraternity of mining engineers are by no means behind the times in this respect. But it has been thought that a union of prospectors, as distinguished from the representatives of the other branches of the mining profession, would be a useful step in the right direction. The advantages of the proposal are sufficiently obvious to give an impetus to those who are engaged at present in discussing it, and, provided that the members do not allow their specialist leanings to interfere with that loyal support which they all ought to render to the wider organisation of their profession, it is difficult to see where would be the disadvantages to counterbalance them. Among the other benefits which might be expected to accrue there may be mentioned the possible formation of a committee of arbitration to settle disputes without the expensive intervention of the law, the establishment of an efficient assay office, where absolutely reliable assays could be obtained at a small cost, and the inception of an information bureau for the registration at their proper value and status of all the neighbouring mining claims. There are others, but these are the chief.

A class of share that has been regarded with deserving favour this week is the Geldenhuis Deep, the £1 shares of which are now over £9. When this company was formed, 2½ years ago, it was known that crushing would commence, in all likelihood, in July, 1895. As a matter of fact, it will commence in a week or two's time, and as the *Johannesburg Star* significantly puts it, "a new era in the history of local gold mining will commence on the day when this Deep Level property will be added to the list of gold-producing mines. Not only will this be the first of the Rand Mines subsidiaries to commence crushing, but it will be the first of the Deep Level propositions to practically demonstrate their value by actual results, and to convince any who remain sceptical on the subject of Deep Level mining on the Rand." It was the intention, it is almost needless to repeat, when the company was formed, to erect in all 200 stamps. For the present, however, the battery will consist of 100 stamps, the remainder to be erected as soon as the mine is sufficiently developed. The following figures, showing the present stage of development, are interesting. They are taken from the *Star*:—"The east, or No. 1 shaft, which cut the reef at 561 feet, is now down 70 feet below the sixth level. It goes off on the incline from the third level. The main shaft goes off on the incline at the sixth level, where the reef was intersected, and the shaft is now down to a depth of 60 feet on the incline below this level. The average dip of the reef is 24° to 25°. The Main reef varies considerably in width and value. It shows an average thickness of 4 to 4½ feet, and the assays show from 6 to 45 dwts. The richest ore in the mine is contained in the leaders, which are three in number.

The best of these is the hanging-wall leader, situate immediately above the Main reef. It is only from 3 to 6 inches in thickness, but assays 4 ounces and upwards. The drives in this mine are unusually large, and some of them might almost be described as small tunnels. The ground is broken in the west section of the mine on the third level, but the reef has been taken up again all right on the fourth level. There is a large dyke in the second level, in the east section, which is now being driven through to pick up the reef. The third and fourth levels are both connected through, but on the fifth level 350 feet of driving is still required to connect this level. On the sixth level four drives are just being started—two east and west from each shaft. Stoping is to be commenced immediately on the second level. There are three winzes down between the second and third, and the third and fourth levels, and two more will be finished by the end of this month. One winze is down from the fourth to the fifth level, and three more are in process. There are 1000 feet of backs opened up on the second level, 2000 feet on the third and on the fourth, and 1300 feet on the fifth level. Driving at present is being done on 13 faces, and nine winzes are being sunk."

An enormous addition to the world's petroleum supplies has been "discovered." We refer to the oil fields of the Indian territory in the United States. The great mineral resources of that region have been known for some time, but on account of the difficulty of access, and the inability of white men to obtain grants from the Indian Governments, nothing has been done towards their development. In Kansas and Arkansas, directly on the border of the Indian lands, rich coal mines have been opened, and many oil wells sunk. Last winter a number of Chicago capitalists sent a prospector through the Cherokee and Muskogee nations. He spent several months travelling through the country, and on his return reported that there was a vast quantity of oil and coal in the Okmulgee, Muskogee, Lufaula, and Deep Fork districts of the Muskogee, commonly called the Creek nation. The prospector was then deputed a lobbyist, and after labouring through a session of the Congress of the Creek nation he succeeded in obtaining a grant of over 1,500,000 acres of land. The Muskogee Oil and Gas Company was incorporated with a capital stock of $1,000,000, most of which has been subscribed in Chicago. The promoters of the company expect to begin operations within a few months of the present time.

It is not required to bore to any great depth, as is the case in the fields of Pennsylvania and Ohio, and it is said that oil and gas can be more cheaply obtained in the Territory than in any other section of the country. The Creek nation retains the proprietorship of all mineral lands within its borders, demanding a royalty from all the companies which are given grants. The royalty on coal is fixed by law at 5 cents a ton, on rock and stone at 3 cents a ton, on oil 4 cents a barrel of 50 gallons, on natural gas $25 a year for each well from which gas is sold, and on all the other minerals 5 per cent. of the value of such materials at the place of production. Gas and oil have been found only 200 feet from the surface. In the Muskogee the facilities for transportation are probably better than in any of the five Indian nations. Three railroads run through the land, and the Canadian river provides a waterway to the Mississippi The difficulties of carrying the oil and coal from the region have been over-estimated. Should oil be found in great quantities it would be an easy matter to extend three or four great railway systems into the territory. Up to date only the crudest machinery has been used in working the fields, and the meagre results that have been obtained are not surprising. Some think that the oil fields of the Cherokee and Muskogee nations are the richest in the country. The cheapness of obtaining the oil is an incentive to experiment. At the deepest, one would have to drill only about 800 feet, while in Pennsylvania it is required to go down from 1800 to 2400 feet.

One of the brightest spots in the commercial horizon just now is the continued revival of trade in America, and there are statistics to hand this week which go very far to show that the industrial improvement is not a fictitious one. A true barometer of commercial development is generally found in the state of the iron and steel trades. Having regard to this circumstance, it is interesting to peruse the midsummer pig-iron statistics of the American Iron and Steel Association. From these we gather that the total production of pig-iron in the first half of 1895 was 4,087,558 gross tons, as compared with 2,717,983 tons in the first half of 1894, and 3,039,405 tons in the second half of 1894, being an increase of 1,369,575 tons in the first half of 1895 over the first portion of 1894 and 148,153 tons over the second portion. In the twelve months from June 30, 1894, to June 30, 1895, there were produced 8,026,963 tons of crude metal. In the last six months of 1895, it is estimated that there will be made some 5,000,000 tons, which will bring the total production for the current year up to 9,000,000 tons. The maximum output took place five years ago—1890—when there were made 9,202,703 tons. The next largest production took place in 1892, when 9,157,000 tons were turned out. The make of Bessemer pig-iron in the first half of the present year reached 2,402,023 gross tons, or over 58 per cent. of the total output. The number of furnaces in blast a year ago was 108, as compared with 186 at the present moment. These figures are very agreeable reading, and we trust that we shall soon be able to report an upward movement equal to this in regard to our own metalliferous industries.

THE MINING MARKET.

Friday Evening.

Active business.—Strong tone, particularly to-day.

UNUSUAL as it may seem, the approaching holidays have had scarcely any influence upon either business or prices in the Mining Market. The daily record of gain, either in one direction or another, has been continuous, and several startling features developed. West Australia has quite shared the honours with South Africa, the advices from either sphere being uniformly favourable and stimulating to a degree. Still, in spite of all this, dealers pine for a rest the incessant excitement, alternately with the Easter and Whitesuntide holidays, has been of an exhausting nature, and many are disposed to strike for a few weeks' rest. But whilst the public here and in France continue buying, a market must be kept whatever the distaste of individual brokers or dealers, and though a lull may come in the course of this month, prices have closed without the least suggestion of any reaction. Events in this market have happened, as they invariably do, everywhere when least expected, and though under normal circumstances, comparative quietude might have been expected this week. The life and energy to-day were almost as boundless as at any other period during this remarkably sustained boom, nor is it in the least improbable but what orders will still accumulate in the interval between to-night and Tuesday. Meanwhile, Continental influence among South African shares is gradually reaching, if it has not already done so, controlling point. Any interruption to business in Paris through the settlement, will quickly be reflected on this side, and news from that capital is just as eagerly discussed as the reports from Johannesburg. The important intimation was conveyed on Tuesday that Mr. J. R. Robinson had concluded arrangements in Paris for the flotation of two subsidiary Randfontein companies, and that the Société Générale would introduce the long-expected "Robinson" Bank. The capital of this undertaking is understood to reach £1,000,000, the object being to amalgamate certain interests, and to follow the methods pursued by the successful Johannesburg Consolidated Investment Company. No doubt there is scope for such an enterprise, especially when backed up by influence of the character that Mr. Robinson can command, for the sphere of operations is always widening, and in proper hands could be made to do well. Another important element within the last few days has been a sharp advance in Chartered shares attributable to buying encouraged by rumours that important developments are pending, probably in the direction of railways, and that, not only are these associated with the return of Mr. Beit, but that Mr. Rhodes, too, will come back to London. The presence here again of these Leviathans could not fail to arouse rumour and conjecture, and, naturally, much speculation is rife as to their intentions. Chartered shares which were 4¾ have closed as good as 5¾, which is even ex-rights, and these are worth another 6s. 3d. per share.

On Saturday prices were supported; the tone was promising, and not only were prices higher in a majority of cases, but appreciable gains were recorded in Exploration, Central, and Consolidated of West Australia. The Robinson group was the chief feature on Monday, and elsewhere there was some irregularity, although Van Ryn were largely dealt in, and Randfontein closed 3⅛ buyers. Business was on an extensive scale on Tuesday, with a special degree of activity in specialities, Potchefstroom jumping to 2⅜ upon the arrival of Mr. C. S. Goldmann. Intense vitality was again shown practically everywhere on Wednesday, an unusual feature being an advance in Chimes, which sprang into notoriety upon a reported discovery, and rose rapidly. On Thursday, and again to-day, Randfontein and Jumpers were among the principal points, and despite realisations the market closed with wonderful *verve*.

South African Mines

While considerable change has taken place in the Kaffir Circus, the run has been mainly upon the cheaper class, of which, perhaps, Jumpers are a very fair example. The reliable dividend-paying properties have reached figures that make them prohibitive to the average buyer, and render a further increase in capital value problematical, but holders cling to their "investments" tenaciously, and opportunities to get delivery are few. The relatively cheap mines offer, therefore, a wider margin of profit, and the buying of Chimes, Van Ryn, Randfontein, Mays, and so on, has been well distributed. The pronounced strength, moreover, shown by Randfontein, which have touched 4, has tended to encourage many others, for North Randfontein have also changed hands at 3, East Rands 2⅝, and Langlaagte Estates 6¼, the latter being very largely bought. Block "B" shares, too, have at length moved, though only by shillings, and are now about 38s. Others of the Langlaagte series are, moreover, distinctly better, and the Main Reef shares improved ¼ to to 2¼. Modderfontein rose £1 to over 16, while Doornkops were put, on a prospect of an amalgamation with the Steyn Estate, to 14s., the last-named, meanwhile, being nearly 2½. Robinsons have, of course, recovered, though only to 9⅜, but as these shares—like Kleinfontein—are favourably regarded in Paris, a more decided movement may occur at any moment. New Primrose, Glencairn, Gold Fields Deep, Wemmer, Princes Estate, Nigel, &c., have noticeably improved, but Apex have not materially altered on balance, and Rietfontein have shown some weakness. A good business was done in Transvaal Gold owing to the company's connection with the Lydenburg district and African Gold Properties have been run up to over 3, but despite most favourable rumours regarding the latter we fear the movement is no better than a rig. Jumpers, to which we have before alluded, have risen from below 7 to 8⅛, supported by the adjustment of difficulties in respect of their licenses, and on a cable that a monthly output of some £10,000 was assured, while the prospective life of the property was lengthened. Neither Geldenhuis nor Nourse Deep have been so firm, and though Cameron Block ruled in demand at 8s. and 8s. 6d, Rothery Blocks have been a little weak on realisations at 25s. Such Barberton district properties as Thistle Reef, Sheba, Moodie's, and Great De Kaap have attracted buyers' attention, but without altering much in price. In Klerksdorp dealings were exceedingly numerous, but the best price was not maintained. Waterfalls Estate and the Lydenburg group generally were fully maintained.

Land and Exploration shares received a stimulus from the attention bestowed upon Chartered, and also on Oceana shares. The French have always taken great interest in the latter, and the buying there has begun to increase. It is said that the Oceana Minerals Company has made arrangements to sell a farm to another "baby," and as the grand-parent company hold a quantity of the Mineral Company's shares, the benefit is mutual. Oceana have risen to beyond 4. Ditto Minerals are fully £2 5s. for the fully-paid shares. Anglo-French African Estates and New Africans established higher quotations, the latter being now very strong at just 9, and Bechuanaland, Mozambique, and Rand Exploration have also improved, while among Rhodesian undertakings proper, Shabki and Macloutsie River have changed hands at between 13s. and 14s. This is regarded as a coming

"thing," its territory being adjacent to Tati Concessions, and an expedition has been organised to thoroughly investigate its resources. Lomahgunda, Woodbyrne, Ayrshire, Mashonaland, Central, and Nelly and Pioneer were also advanced on balance. Strength was imparted to Diamond shares by further satisfactory statements as to the trade in gems, and De Beers and Jagersfontein finished at 24¼ and 9, respectively.

West Australians.

Considerable expansion has taken place among West Australians speculation being on an extensive scale, and quotations have scored a big rise, notwithstanding irregularity, in consequence of realisations by those who mistrust the present movement. Of course, the recovery may be premature, but there is a great deal in its favour nevertheless, and the statements made at the meeting on Wednesday [of the West Australian Gold Fields Company should at least leave no ground for distrust. What is wanted is more time to properly develop the undoubted value of Coolgardie as a gold field. Great Boulders have again been 4¼ to 4⅜, but dropped subsequently to 4, and recovered again to 4¼, 4⅜. Many transactions have likewise taken place in North Boulder—no connection with the first-named—and the price has been about 11s. Hampton Lands have touched 6, as another substantial dividend is announced, and Hampton Plains, too, are better at 3⅜. West Australian Gold Fields rose £1 to 5⅛, Abbott's were in strong request at 1⅞, and Austin's, as well as the despised Bayley's, have rallied somewhat. Gains have at the same time been established among Big Blow, Lady Loch, Exploring and Finance, Gold Estates, Mawsons, Pilbarra Concessions, White Feather, and Caledonians, while Hannan's Brownhill are quite £1 better at 2. Londonderry improved to 15s. as the Germans have been buyers. New Chum shares are stronger as the Southern Chum was a big success, and the latter are already quoted at a premium. Kurnalpi shares attracted attention, and were strongly enquired for on a valuable strike being reported. The closing quotation is about £1.

Miscellaneous.

The tendency here has been favourable, although many people appear to be sorely disappointed that Achilles and sundry more of the same class do not rise. The latter will perhaps rise 3d. or 6d. and then fall back again to their old level of 3s. 6d. or 4s. and remain there. Kapaugas have, however, further recovered, touching fully 16s. 6d., as a cablegram stated that the company is crushing freely, and from 50 tons obtained nearly 500 ounces. Hauraki have remained dull in spite of the New Hauraki being well received. Graskop, Balkis, Spitzkop, Columbian Hydraulic, Elkhorn, Golden Feather, Harquahala, and Wentworth show irregularity, but none appear to be any worse. Waihi have risen 10s. or so, and Broken Hill "Props" are better at 1¾, though the fire is still devastating the mine—or anyway, a large portion of it. Copper mines have received notice from buyers, who, observing that copper was rising, have taken their cue from the Continent, and bid for Rio Tinto, which are, accordingly, 15s. to 17½, Mason and Barry being firm at 3. Indian gold mines were disposed to rise, but Ooregum have been dull at 3⅛, nevertheless, and Champion Reef have scarcely responded to a satisfactory dividend announcement of 4s. Siam Exploring, which have been wholly neglected for months, have at length moved, closing ⅝ to ¾. A very influential financial group is, we understand, sending experts to Siam with a view of acquiring some of the valuable mineral rights belonging to this company, and a further revival is looked for.

British Mines.

The Cornish market has been very much better during the last few days. The election of Mr. A. Strauss as Member of Parliament for the mining division has imparted a measure of confidence and support that has been lacking for a long time. Orders have been plentiful, and brokers have had considerable difficulty in supplying shares at their quotations, and many orders have only been partially executed. There has been a good business in the new Dolcoath shares from 2s. 6d. to 6s. 3d. prem., but the fully-paid shares have been neglected and close about 24s. It is understood that the 50,000 shares offered at 1½ have been largely over-subscribed. Carn Brea are from 3⅛, East Pool steady 5½, Killifreth advanced to 15s., South Crofty about 20s., Tincroft have been in request and close 10⅛, West Frances, buyers, 25s., Wheal Basset 2, Wheal Grenville 14⅛, Wheal Kitty 4s. The market generally is healthy, and it looks as if business will revive in early course.—Risen: Killifreth, 3s. 9d.; South Crofty, 5s.; Tincroft, 10s.; West Frances, 15s.; Wheal Basset, 5s.—Fallen: West Kitty, 5s.; Wheal Kitty, 1s.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS.—Monday September 2.

STOCKS AND SHARES.

AUGUST.

Ticket Days.	Account Days.
Tuesday, August 13	Wednesday, August 14
Wednesday, August 28	Thursday, August 29

Contango Days for South African Market:—

Saturday, August 10 | Monday, August 26

HOLIDAYS.

Saturday, August 3. | Monday, August 5.

THE IRON AND STEEL MARKET.

The following is the Quarterly Report of Messrs. BARRY, HEAD, and Co.:—

TO-DAY'S APPROXIMATE BASIS PRICES.
WITHOUT ENGAGEMENT.

	Price per ton.	F.o.b. at	Less discount. Per cent.
IRON.—			
Superior Crown Bars	£5 5 0	Middlesbro'	3
Common Bars	5 0 0	do	3
Ship Plates	4 17 6	do	3
Ship Angles	4 15 0	do	3
Single Sheets	6 10 0	do	3
Puddled Bars	3 5 0	do	nett.
STEEL.—			
Bars	5 10 0	do	3
Ship Plates	5 0 0	do	3
Ship Angles	4 17 6	do	3
Hoops and Strips	5 17 6	do	3
Charlier Shoe Bars	6 0 0	do	3
Cut Nails	7 0 0	do	7½
Heavy Rails, 56 lbs.	3 12 6	Works Port	nett.
Light Rails, 14 lbs.	4 12 6	do	do

Terms: Cash against mate's receipt.
For definite quotation, kindly submit specification.

THE "BUDGET" LETTER CARD.—We have received a sample packet of the "Budget" letter card, the invention of Messrs. Langley and Son, printers, George-street, N.W., for which they have applied for a patent under the following specification:—"An improvement in letter cards by the insertion of extra leaves, in book form, thereby giving increased space for writing."

THE GREAT NEWHOUSE TUNNEL.

"CONDITIONS, not theories" have confronted business men for decades, until the three words have resolved themselves into a motto like unto a watchword for careful investors; and in no industry can the trite saying, in all its meaning, be more carefully observed to a successful financial end, than in that industry which "makes or breaks"—viz., mining.

It is well said by a mining expert of known ability concerning the Newhouse tunnel, now being driven under the mountains between Idaho Springs and Central City: "The tunnel is not being driven to create a condition; it is the condition which creates the tunnel."

These conditions, and a description of the gigantic enterprises for both relieving and improving them, your correspondent will endeavour to explain.

The objective point of the tunnel is the great mineral district of Gilpin county, a district explored in 1858 by Russell and Gregory, two "Pike's Peak or Bust" prospectors, who ranged farther north than their companions, finally giving out to the mining world what has since been proven to be one of the richest and steadiest gold-producing sections in the West, Governmental statistics showing its yield in gold alone, from 1859 to 1893, to be $65,844,701; for the year 1893, $2,034,300, and for the year 1894, $2,122,838 in gold alone, justifying the name given it, "The Little Kingdom."

Yet, with all this wonderful output, the mine-owners in the district have for years stood with their hands tied, so to speak, and have seen millions of tons of rich gold-bearing ore withheld from them, far in excess of that mined, simply by natural conditions which, until the building of the tunnel, seemed insurmountable. In the first place, the district is one requiring deep mining. This entails encountering great veins of water, and very expensive mining in the establishment of hoisting and pumping plants with the fixed expense of engineers and fuel, and without which mining becomes absolutely prohibitive beyond a certain depth. The ores of the district are copper and iron sulphides which, coming in contact with water, decompose, become impregnated with decayed vegetable matter, and thus rapidly alter the water into sulphuric acid, which in turn eats up all metal articles, such as bolts, piping, &c., with which it comes in contact. Hence the necessity for drainage, one of the prime purposes of the tunnel.

Besides drainage, access to properties along its line will be afforded at a greater depth than heretofore allowed without great expense. Another consideration in the inauguration of the enterprise is the encountering of many veins of rich ore, hitherto unknown and impossible to reach.

Last, and by no means least, one of the sources of revenue, which, with the others, will be a most important consideration to the tunnel company, and at the same time fall easily upon the mineowners, is the construction of a double track railway for the purpose of handling the ores from the veins which it will intersect, ultimately opening up the entire district.

And here your correspondent wishes to correct a false impression concerning Mr. Newhouse's great enterprise—viz., that a few more years must elapse before the entire completion of the work, and hence that neither tunnel nor miner will gain any advantage until it is done. On the contrary, the work now being prosecuted creates a comparatively clean bore of 12x12 feet, permitting the greatest amount of traffic possible. Drains of sufficient dimensions are constructed, and railway tracks are laid as fast as the excavating is done, and every facility is placed for the immediate handling of the water and ores as soon as a vein is encountered. Then as soon as each vein is drifted on, a steady approach is made to those now remote, affording them the same facilities and consequently increasing the tunnel revenues.

It seems that for years past some project of the kind had been considered; but to Samuel Newhouse, of Denver, the inauguration and successful carrying out of the vast enterprise is due. He purchased the Idaho Springs end of Seaton Mountain and commenced to bore straight for Central City. Two air compressor plants are used so that in case of one breaking down the other could prosecute the work in the vigorous manner which has so far signalised it as one of the most rapid in engineering history. Two Leyner drills are kept going the entire 24 hours, with brief intervals for blasting and dumping. The tunnel is now in some 3000 feet, and when completed will be about 4½ miles in length. It is an absolute bee-line, and in at the breast one can now plainly see the little bit of light indicating the tunnel mouth. The dip is toward Idaho Springs, and is about 5 inches in 100 feet, thereby facilitating drainage and transportation.

Work has also been started on the Central City end of the tunnel, 4½ miles from its mouth at Idaho Springs, on the Eureka Mine, where a shaft is now down about 500 feet, and will be continued to a depth of 1800 feet.

The Central City end of the tunnel will be about 850 feet above the town level; but as the mines are all at an altitude much above the town it will strike them just right.

Miners who ought to know, estimate that the tunnel will, from present development, make upwards of $20,000,000 of the precious metal accessible, of the lower grade ores alone, which could not be mined from shafts at a profit on the old plan; while with the tunnel they can not only be mined at an inconsiderable expense, but transported to the mills at Idaho Springs and treated at a figure which, with the low cost of mining and transportation, makes it possible to owners of such shafts to realise handsome profits.

To thoroughly appreciate this vast undertaking one must take into due consideration the great losses suffered by owners in the district heretofore, the immense enhancement of values brought about at a small expense by the tunnel, and the consequent development at a profit of what seemed heretofore impossible. In these days of rivalry between States as against States, and countries against countries concerning the value of their output of precious metals, and the consequent cumulative values of the sections commercially and otherwise, there is no work going on in a definite way of more importance to the people at large, particularly to the State of Colorado, than this enterprise of Mr. Newhouse. It simply means, besides the benefits it confers on Gilpin and Clear Creek county mineowners individually, that after completion, for each successive year for centuries to come, many millions will be added to the output of the section, not only in gold but in silver as well, and as drifting into new leads is continued, there will be an increased ratio each year, until, ere long, no individual mine, or even any collection of mines, in South Africa or any other great district, will furnish as much gold as will come solely through this great enterprise—the Newhouse tunnel.—*The Mining Review.*

— The NIGEL COMPANY notifies that the resolutions for the increase of the capital to £200,000 have been carried, and that forms of application have been sent to the shareholders, on which they may apply for their rights—viz., one share at £6 for each eight shares held on August 14.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, AUGUST 2.

Copper.

IN spite of further considerable realisations on the part of holders, the market has continued its upward course, owing to buying from the same quarter which we mentioned in our last report. In New York, the price of Lake has risen further, and is now quoted 11·75 to 12 cents. Consumers here have been buying a little more, but, on the whole, they keep quiet. Manufactured copper is also inanimate. The G.M.B. market opened on Monday with the upward tendency still prevailing, and about 1200 tons changed hands at £45 3s. 9d. to £45 2s. 6d. s.c., and £45 12s. 6d. to £45 10s. three months. On Tuesday values improved again to the extent of about half-a-crown, the transactions amounting to over 1000 tons. Wednesday's turnover was considerably more extensive, and values rose to £45 10s. 3d. spot, and £46 for forward. Thursday brought a further rise, up to £45 16s. 3d. being paid for cash, and £46 3s. 9d. for three months. The turnover for the day fell below 1000 tons, the second Exchange being suppressed on account of the death of the Chairman of the Metal Exchange. To-day a fairish business took place at £46 for spot, and up to £46 7s. 6d. for forward, and the market closed this morning firm at £46 to £46 2s. 6d. s.c., and £46 7s. 6d. three months.

Tin.

This market opened rather easier, and realisations of considerable quantities sent the value quickly down to £65 2s. 6d. s.c. and £65 7s. 6d. three months, *i.e.*, about 20s. per ton under the close of the preceding week. On Tuesday, after a further loss of 7s. 6d. per ton in the price, the decline was checked by speculative bids, and a rally to £65 10s. three months ensued, and this recovery continued on Wednesday, when moderate purchases resulted in £65 17s. 6d. being finally paid for three months' tin. The following day's market was quiet but steady, with a tendency to rather lower figures, and this morning, after a moderate business at considerably lower values (cash being done as low as £64 12s. 6d.), we closed quiet at £64 10s. to £64 12s. 6d. s.c., and £64 15s. to £64 17s. 6d. three months' Straits. Billiton tin has declined steadily from 39½ fl. to 39 fl. s.c., and from 40 fl. to 39 fl. three months, whilst Banca closed at 39⅜ fl.

Pig Iron.

The shipments from Scotland for the week ending July 27 were 5677 tons. From 45s. 2d. s.c. at the beginning of the week, the value of cash Scotch rose finally to 45s. 6d., and closed to-day at this price, with hematite at 45s. 5½d. and Cleveland at 36s. 5½d.

Lead.

Has continued to improve and closes firm at £11⅞ to £11 2s. 6d. soft foreign, and £11 2s. 6d. to £11 5s. English, a rise of about 1s. 3d. per ton.

Spelter

continues decidedly strong, and 5s. higher—viz., £15 5s. to £15 7s. 6d. ordinaries, and £15 7s. 6d. to £15 10s. specials.

Antimony

is quiet and unchanged at £32.

Quicksilver

closes steady at £7 5s. firsts, and £7 3s. 6d. to £7 4s. seconds.

The following are to-night's (August 2) prices of metals:—

	£ s. d.	£ s. d.
Copper.		
Tough cake and ingot	49 5 0	49 10 0
Best selected	50 5 0	50 15 0
Electrolytic Copper	52 0 0	53 10 0
Sheets and sheathing	——	55 0 0
Flat bottoms	——	58 0 0
Chili bars (spot, & 3 months respectively)	48 0 0	48 7 6
Copper tubes, seamless	——	0 0 7½
Alloys.		
BRASS: Wire	——	0 0 5¾
,, Tubes (solid drawn)	——	0 0 6
,, Sheets	——	0 0 5¾
PHOSPHOR BRONZE: Alloys II. (Cog Wheel Brand)	——	78 0 0
,, ,, III. or VII. (Cog Wheel Brand)	——	81 0 0
,, ,, VII. (Cog Wheel Brand)	——	83 0 0
,, ,, XI. (Cog Wheel Brand)	——	78 0 0
,, ,, Vulcan brand A1	——	72 0 0
DURO METAL	——	73 0 0
BULL'S METAL	——	65 0 0
Ferrobronze (Vivian's).		
Ingots ...per lb.	0 0 8¾	——
Ordinary sheets, plates, bolts and bars	0 0 6½	——
Screw bolts and nuts	0 0 9	——
Pump rods, plain	0 0 7	——
,, finished	0 0 10	——
DELTA METAL: No. 4 (per ton)	——	——
,, Sheets and plates (per lb.)	——	——
,, Bars, round, square, flat (per lb.)	——	——
,, ,, hexagon (per lb.)	——	——
Tin.		
English, ingots, f.o.b.	69 10 0	69 10 0
,, bars	69 10 0	70 10 0
,, refined	70 10 0	71 10 0
Straits, spot and 3 months respectively	64 10 0	64 15 0
Australian spot, and three months respectively	65 10 0	65 15 0
Banca ,, (in Holland)	65 15 0	65 17 6
TIN PLATES: Charcoal, best quality per box	0 12 0	0 14 0
,, ,, ordinary	0 11 0	0 11 6
,, Coke, best quality	0 10 3	0 10 6
,, ,, ordinary	0 9 6	0 9 9

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.		
Pig, G.M.B., f.o.b., Clyde, spot	——	2 5 5½
,, Scotch pig, No. 1 Gartsherrie	——	2 11 6
,, ,, Coltness	——	2 13 0
,, ,, Clyde	——	2 3 6
,, ,, Govan	——	2 6 6
Bars, Welsh, f.o.b. Wales	——	4 15 0
Plates ,, ,,	——	5 10 0
Bars, Staffordshire, at works	——	4 17 6
Sheets ,, ,,	——	6 10 0
Plates ,, ,,	——	6 7 6
Hoops ,, ,,	——	5 10 0
Ship plates, Middlesborough	——	4 17 6
STEEL: English spring	——	7 5 0
,, ,, cast	——	47 0 0
,, Rails at works, according to section	3 10 0	4 10 0
Lead.		
Spanish or soft foreign	11 0 0	11 2 6
English pig, common	11 2 6	11 5 0
,, L.B.	——	11 10 0
,, sheet	——	12 2 6
,, bar lead	——	12 2 6
,, pipe	——	12 12 6
,, red	——	13 10 0
,, white	——	13 15 0
,, patent shot	——	14 15 0
Spelter.		
Silesian ordinary brands	15 5 0	15 7 6
,, special brands	15 7 6	15 10 0
English Swansea	15 17 6	16 0 0
Sheet Zinc	18 0 0	18 10 0
Antimony.		
Antimony	——	31 0 0
Quicksilver.		
Flasks, 75 lbs. warrants	7 3 9	7 5 0
Manganese.		per unit.
Ore, c.i.f., U.K. ports 1st quality, 50 per cent. and upwards	0 0 10	0 0 11
2nd ,, 47 per cent. to 50 per cent.	0 0 9	0 0 10
3rd ,, 40 ,, 47 per cent.	0 0 7½	0 0 9
Aluminium.		Per lb.
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)		0 1 7
do do (1 ton lots)		0 1 6
Nickel.		
98-99 per cent. guarantee	0 1 3	0 1 6

"THE MINING JOURNAL" SHARE LIST.

BREVIATIONS AND REFERENCES.—Th following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bx*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; ‡ in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and †, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

** The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share (£ s.)	Latest Dividend	Called up Per Share. (£ s. d.)	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Blue Hills ......*CT*	10/ 15/	10/- 15/-	*	2/- May,'81	5 19 5	5,353	Cornwall	Camborne.
Botallack .. ..*T*	—	—	*	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea ....*T*	3¼ 3½	3¼ 3½	*	2/6 Dec.,'93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen ..*T*	5/ 10/	5/ 10/	*	—	35 15 10	4,900	Cornwall	Camborne.
Devon Gawton *CA*	par ¼ pm.	par ¼pm.	1 0	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
Devon Gt Cons. *CA*	20/ 25/	1⅛ 1⅜	5 0	1/6 May '95	2 0 0	10,240	Devon ...	8, Finsbury circus.
Dolcoath ....*T*	1⅛ 1¼	1⅛ 1⅜	1 0	12/6 Apr.,'94	—		Cornwall	Camborne.
Drakewalls *CTM*	—	—	0 5	—	0 2 0	81,856	Cornwall	Dashwood House.
East Halkyn...... ...	20/- 25/-	20/ 25/	1 0	—	0 12 6	12,000	Flintshire	67, Lord St., Liverpl.
East Pool ......*AT*	5¼ 5½	5¼ 5½	*	1/6 Sept,'94	0 9 9	6,400	Cornwall	Illogan.
Gawton ....*CA*	—	—	2 10	—	2 7 3	12,000	Devon ..	20, Great St. Helens.
Great Laxey......*L*	1 2	1 2	4 0	5/- Apr.,'92	4 0 0	15,000	I. of Man	Douglas, Isle of Man.
Green Hurth ...*L*	1/6	1/6	1 0	-/6 June '89	0 19 0	32,000	Cmberlnd	Newcastle.
Halkyn .... *L*	9 10	9 10	1 0	2/- June,'95	1 0 0	10,000	Flintshire	Chester.
Do. Dis. Mn. Drain	10 11	10 11	10 0	4/- Mar,'95	10 0 0	10,000	Flintshire	CornEx.Cmb. Chestr.
Isle of Man ......*L*	3¾ 4¼	3¾ 4¼	5 0	2/- — 95	5 0 0	11,000	I. of Man	Chester.
Killifreth ....*T*	13/9 16/3	7/6 12/6	*	1/6 Nov.,'94	5 11 6	6,000	Cornwall	Truro.
Leadhills ....*L*	⅞ 1⅛	⅞ 1⅛	6 0	3/- Sep.'92	6 0 0	20,000	Lanarksh.	30, Finsbury-circus.
Llanarmon	par	par	1 0	—	1 0 0	21,990	Denbigh	8, Werburgh Chmbrs
Llanarmon	par	par	1 0	—	0 15 0	3,790	Flintshire	Chester.
Levant ....*CT*	4¾ 5	4¾ 5	*	4/- Nov.,'94	11 9 6	2,500	Cornwall	Penzance.
Lovell ....*T*	—	—	*	1/3 Nov.,'91	1 16 7	7,165	Wendron	3, Gt. Queen-st.,S.W.
Minera...............*L*	—	—	5 0	5/6 Mar.'90	5 0 0	9,000	Denbghsh.	Minera, N. Wales.
Nenthd&Tndle.*LZ*	3/6	3/6	1 0	6% Feb.,'91	0 18 0	48,815	Nthumbld	Newcastle-on-Tyne.
NewCooksKitn.*TC*	—	—	*	—	10 18 3	4,900	Cornwall	Camborne.
New Minera	—	—	1 0	1/- Oct.,'92	1 0 0	30,000	N. Wales...	6, Queen-street-place.
North Hendre	—	—	2 10	5 p c year 81	2 10 0	11,854	Flintshire	11, Nwgt. st., Chstr.
Parc ....*LZ*	—	—	1 0	—	1 0 0	5,000	Llanrwst...	Billiter sq. buildings
Phoenix United *TC*	1/6 2/-	1/6 2/	*	1/- Mar.'90	7 4 6	10,666	Cornwall	Liskeard.
Polberro ....*T*	15/ 20/	15/- 20/-	*	—	3 7 9	18,000	Cornwall	37, Walbrook.
Rhosemor ....*L*	par	par	1 0	10 p c Sept. 91	1 0 0	1,030	Flintshire	CornEx.Cmb.Chestr.
Rhosemor ....*L*	par	par	1 0	—	0 19 0	18,000	Flintshire	CornEx.Cmb.Chestr.
So. Condurrow *TC*	2/6 7/6	2/6 7/6	*	3/6 Apr.'93	7 17 6	6,123	Cornwall	20, Great St. Helens
South Crofty *TA*	17/6 22/6	12/6 17/6	*	—	17 10 6	5,769	Cornwall	Pool, Cornwall.
S. Frances Untd. *T*	5/- 10/-	5/- 10/-	*	—	2 7 6	6,000	Cornwall	Redruth.
South Halkyn	par	par	1 0	—	1 0 0	10,000	Flintshire	8, Werburgh Chmbrs
South Halkyn	par	par	1 0	—	0 7 0	30,000	Flintshire	8, Werburgh Chmbrs
Talacre	par	par	1 0	—	0 16 0	20,000	Flintshire	81, Forgate st., Chstr
Tincroft ....*T*	10½ 10¾	9¾ 10¼	*	2/- Aug.'94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale ....*L*	8/9	8/9	4 0	1/3 Oct.'90	1 10 0	50,000	Durham...	3, Lombard-court.
West Frances ...*T*	25/- 30/-	10/- 15/-	—	2/6 May,'89	17 1 7	6,144	Cornwall	Camborne.
West Kitty ......*T*	5¼ 5½	5¼ 6	*	2/- Dec,'94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheal Agar . .*TA*	2/6 7/6	2/6 7/6	*	2/6 Aug.'88	23 15 2	6,000	Cornwall	Redruth.
Wheal Basset ...*TC*	1¾ 2¼	2 2¼	*	10/- Apr.'88	12 3 0	6,144	Cornwall	Redruth.
Wheal Friendly..*T*	-/6 1/-	-/6 1/-	*	—	0 12 9	10,000	Cornwall	110, Cannon-st., E.C.
Wheal Grenville *T*	14¼ 14¾	14¼ 14¾	*	3/- July,'95	18 2 0	6,000	Cornwall	7, Union-court, E.C.
Wheal Kitty......*T*	4/ 6/	5/- 7/-	*	3/- Mar.'88	4 5 6	8,590	Cornwall	Truro.
Wheal Metal &F.*T*	—	—	*	—	0 13 9	10,784	Cornwall	14, Broad-street.

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Abbotts ....*G*	1¼ 1⅜	1¼ 1⅜	1 0	—	0 17 6	67,000	M'rchison	17, Old Broad st.
Achilles Gld Fld.	3/9 4/3	3/9 4/3	2/6	—	0 2 6	642,456	N.Zealand	Poultry.
Aladdins Lamp *G*	1⅛ 1¼ xd	1 3/16 1 5/16	1 0	-/6 July 95	1 0 0	100,000	N.S.Wales	4-6, Throg. Avenue.
Assoc. Gold Mines	1⅜ 1½	1⅜ 1½	1 0	—	1 0 0	375,000	Coolgardie	20, Bucklersbury
Austin...............*G*	11/3 13/9	9/16 9/16	1 0	—	1 0 0	50,000	Murchison	23, College hill, EC
Australasian ......*G*	3/6 4/-	3/6 4/6	1 0	-/6 Mar.,'92	1 0 0	210,000	Queenslnd	6, Queen-st. place
Australian ....*C*	—	—	10 0	-/9 Aug.'95	7 7 6	18,315	S. Austral.	15, Old Jewry Chbrs
Aus. Bro. Hill Con.	2/9 3/3	2/9 3/2	1 0	1/- June,'91	1 0 0	537,138	N.S.Wales	Dashwood House.
Baker's Creek ...*G*	17/6 20/ xd	¾ ⅞	1 0	1/- May'95	0 17 6	100,000	N.S.Wales	Hillgrove, N.S.Wales
Bayley's Reward *G*	8/ 9/	8/- 9/-	1 0	-/4 Dec. 94	1 0 0	480,000	Coolgardie	F'sb'y. H. Bl'mf'ld St.
Big Blow ....*G*	1⅜ 1⅝	1⅜ 1¾	1 0	—	0 15 0	100,000	Coolgardie	Blomfield Ho., E.C.
Blackett's Claim *G*	11/3 15/9	¾ ⅞	1 0	—	1 0 0	60,000	Coolgardie	Winchester House
Bonnie Dundee *G*	14/ 15/	14/ 15/	1 0	—	1 0 0	80,098	N Zealand	6, Gt. St. Helens'
Brilliant.............*G*	14/ 16/ xd	11/16 13/16	2 0	-/4 July '95	2 0 0	250,000	Queenslnd	Charters Towers.
Brilliant Block...*G*	1 15/16 2 1/16	1⅞ 2	2 0	-/6 July 95	2 0 0	250,000	Queenslnd	3, Gracechurch-st.
Brilliant, St. Geo.	1⅛ 1⅜ xd	1⅛ 1⅜ xd	0 10	6d. June '95	0 6 3	72,000	Queenslnd	Charters Towers.
Brit. Brok. Hill *S*	—	—	1 0	—	1 0 0	—	N.S.Wales	Dashwood Ho., E.C.
Brit. Broken Hill	—	—	0 8	—	0 8 0	—	N.S.Wales	Dashwood Ho., E.C.
Broken Hill Prop.	1⅜ 1¼	34/- 36/-	0 8	1/- July '95	0 8 0	960,000	N.S.Wales	Dashwood Ho., E.C.
Cashman Bril.... *G*	—	4/- 5/-	1 0	—	1 0 0	60,000	Coolgardie	Winchester House.
Carrington..........*G*	8/ 9/	9/ 10/	12/6	—	0 12 6	100,007	Queenslnd	9, Tokenhouse Yard.
Con. G. M. of W. A.	1⅜ 1⅝	1 1/16 1 3/16	1 0	—	0 12 6	90,000	W.Austral	14, Hill st., Edinboro'
Coolgardie..........*G*	/9 1/	1/3 1/9	0 2	—	0 0 6	40,000	Coolgardie	Winchester House.
Coolgardie(Shriws)	18/ 19/	17/6 18/6	1 0	30% June 95	0 6 0	—	Coolgardie	Broad Street Avenue.
Craven's Cal. ... *G*	3/ 4/	3/- 4/-	0 6	-/3 June 94	0 4 8	100,000	Queenslnd	30-1, S. Swithin's-le.
Crown Bayley's..*G*	1/16 ⅛ pm	1/16 ⅛ pm	1 0	—	0 10 0	80,000	Coolgardie	Bishopsgate Ho. E.C.
Cumbrind (New)*G*	3/3 3/9	3/3 3/9	1 0	2/6 Dec.'87	0 19 0	184,290	Queenslnd	Blomfield House.E.C.
DayDawn B.&W.*G*	9/6 10/6	6/ 10/	1 0	-/6 Mar. 93	1 0 0	498,400	Queenslnd	3-5, Gracechurch-st.
Day Dawn P. C. *G*	4/6 5/6	4/9 5/3	1 0	-/4 Apr.'92	1 0 0	490,000	Queenslnd	Winchester Ho.,E.C.
Eaglehawk.........*G*	1/3 1/9	1/6 2/-	1 0	—	0 19 9	120,000	Victoria...	31, Lombard-street.
Empress Coolge. *G*	¼ ½ dis.	¼ ½ dis	1 0	—	0 10 0	90,000	Coolgardie	2, Tokenhouse bldgs
Eng. & Aus. Cop. *Cu*	1/16	1/16	2 0	2% 1883	1 17 6	70,000	S. Austral.	136, Palmerston-bldgs
Glenrock .... *G*	1/6 2/	1/9 2/3	1 0	—	1 0 0	225,000	N.Zealand	3-5, Queen-st. E.C.
Golconda ....*G*	1 1/16 1 3/16	1 1⅜	1 0	—	1 0 0	68,086	Murchison	Winchester House
Gold Estates........	1 5/16 1 7/16	1⅜ 1⅝	1 0	—	0 10 0	80,000	W. Austral	42, Gresham House.
Great Boulder ...*G*	4⅜ 4⅝	4 5/16 4 7/16	1 0	2/- July '95	1 0 0	119,380	Yilgarn ...	3, Gracechurch st.
Great Coolgardie...	½ ¾	½ ¾	1 0	—	0 15 0	85,000	Coolgardie	3, Budge Row.
Great Fingall Rfs.	¾ 1	¾ 1	1 0	—	1 0 0	175,000	Kurnalpi	Broad Street House.
Golden Gate......*G*	—	—	0 10	—	0 10 0	150,000	Queenslnd	9, Tokenhouse Yard.
Hampton Lands...	5⅜ 5⅝	5¼ 5⅜	1 0	10/- Aug. '95	1 0 0	84,075	Coolgardie	1, Whittington Avue
Hampton Plains...	3⅛ 3⅜	3 5/16 3⅜	1 0	—	0 4 0	350,000	Coolgardie	29, S. Swithin's lane
HamptonPlainsEx	8/ 9/	8/6 9/6	1 0	—	0 18 0	180,000		Suffolk House, E.C.
Hannan's BrwnHil	2⅜ 3⅛	2¼ 2⅜	1 0	—	1 0 0	65,000	Coolgardie	Broad Street House.
Hauraki............ *G*	15/ 16/	15/- 16/-	2/6	2/6 July '95	0 2 6	250,000	Coromndl.	Dashwood Ho.; E.C.
Kaboonga ....*G*	3/3 3/9	3/3 3/9	0 10	—	0 9 9	500,000	Queenslnd	70-71, Bishopsgate st.
Kangarilla ....*S*	6/ 7/	7/3 7/9	1 0	—	1 0 0	88,275	So. Austral	68, Coleman street.
Kapanga............*G*	15/ 16/	12/- 13/	1 0	-/6 Jan.'91	0 19 6	250,000	N.Zealand	9, New Broad-street
Kinsella ....*G*	1⅜ 1⅛	1 5/16 1 7/16	1 0	—	1 0 0	80,000	Murchison	33, Broad-st. Avenue
Kurnalpi............*G*	11/ 12/	11/ 12/	1 0	—	—	—	Coolgardie	Throgmorton House
Lady Loch.....	¾ 1	1⅜ 1⅝	1 0	—	1 0 0	70,000	Coolgardie	9, Tokenhouse Yard,
Lady Mary Amalg.	2¼ 2⅝	2¼ 2⅝	1 0	—	1 0 0	46,000	Murchison	Blomfield House.
Lindsay	12/6 17/6	9/16 ¼dis	1 0	—	0 10 0	65,000	Coolgardie	Copthall House
Londonderry......*G*	13/9 16/3	¾ ⅞	1 0	—	1 0 0	467,000	Coolgardie	3, Gracechurch-st.
L.& W. Aust. Expl.	4⅜ 4⅝	3⅜ 3⅝	1 0	20 p.c. Dec.'94	1 0 0	100,000	W. Austral	Broad Street Ho.
Mainland Cons. *G*	2¼ 2⅜	1 13/16 2 1/16	1 0	—	0 15 0	150,000	Murchison	5 Old Broad Street
Mawson's Rewrd. *G*	17/6 21/	⅞ 1⅛	1 0	—	0 10 0	60,000	W.Austral	28 & 29, S. Swithin's ln
Mills' Day Dawn *G*	21/3 23/9	1 1/16 1 3/16	1 0	-/6 May '95	0 15 6	300,000	Queenslnd	3, Gracechurch-st.
Mosman ....*G*	5/9 6/3	5/6 6/6	1 0	—	1 0 0	58,235	N.S Wales	16, St. Helen's-place.
Mt. Leyshon ......*G*	—	—	1 0	-/6 Dec.'90	1 0 0	157,989	Queenslnd	7, Draper's-gardens.
Mount Morgan *G*	2⅛ 2⅜	2⅛ 2¼ xd	1 0	-/6 Aug.,95	0 17 6	1,000,000	Queenslnd	9, Gracechurch-st.
Mount Zeehan *SL*	-/6 1/-	-/6 1/	1 0	—	1 0 0	193,257	Tasmania	Mansion Ho. Cham.
Murchison Gift ...	4/ 4/6	3/6 4/	—	—	—	—		
Murchison Gold ...	6/ 7/	6/- 7/-	—	—	—	—	—	
N. Australian G. F.	19/- 20/-	19/ 20/	1 0	-/6 June,'95	0 19 6	20,000	—	7, Union Court.
New Queen ......*G*	8/6 9/	8/- 9/-	1 0	—	1 0 0	158,916	Queenslnd	30, St. Swithin's-la.
North Coolgardie..	1/6 2/	1/ 1/6	0 5	—	0 4 0	85,000	Pilbarra ...	226, Winchester Ho.
N. Q'ld. M. Agency	2 2¼	2 2¼	1 0	30% Aug.'95	1 0 0	90,000	Queenslnd	10 New Broad Street
Queen's Bthdy Un.	13/ 14/	13/- 14/-	1 0	—	0 12 6	75,000	Victoria...	7-8, Gt. Wnchster St.
Sam's With. of Nat.	3/6 4/6	3/6 4/6	1 0	—	0 18 0	200,000	W.Austral	33, Old Broad Street.
ScottishAustralian	⅜ ¾	⅞ 1	1 0	-/3 Aug.,'95	1 0 0	200,000	N.S Wales	Winchester Ho. E.C.
Victoria Associatn.	—	—	1 0	-/6 July,'95	1 0 0	144,000	Chr. Tow.	6, Crosby-square
Victory............ *G*	7/ 8/	8/- 9/-	0 5	-/3 Mar.,'94	0 5 0	200,000	Queenslnd	32, Gresham-st., E.C
Waihi.............. *G*	5¾ 5⅞	5⅞ 6	1 0	2/- June '95	1 0 0	15[illegible],000	N.Zealand	11, Abchurch-ln. E.C
Waratah...........*G*	8/ 9/	8/- 9/-	0 10	—	0 10 0	6,500	Crydn,NZ	43, Threadneedle st.
Wentworth Exten.	5/16 ¾	5/16 ¾	0 5	—	0 5 0	178,820	N.S Wales	19, S. Swithin's Lane
Wentworth . . ..*G*	1 1/16 1 3/16	1 1 1/16	1 0	1/- Aug '95	1 0 0	380,000	N.S Wales	4-6, Throgmort. Av.
W. Argentine ... *G*	1/- 1/6	1/3 1/9	1 0	—	0 19 0	150,000	N.Zealand	3-5, Queen-street.
W. Aust. G. Conces	1⅛ 1⅜ xd	1⅛ 1⅜	1 0	20% May '95	1 0 0	17,500	W.Austral	33, Old Broad st., EC
W. Aus. Exploring	2⅜ 2⅝	2 9/16 2 11/16	1 0	—	0 15 0	200,000	W.Austral	34, Old Broad st., EC
W. Australian G.F.	5 5⅜	4 15/16 5 1/16	1 0	2/6 Dec., 94	1 0 0	66,000	Coolgardie	28-29, S. Swithin's-ln.
W. Aust. Mining	5/ 6/	4/6 5/6	1 0	—	1 0 0	104,257	W.Austral	257, Winchester Ho.
W. Mallina .. ...*G*	3/- 3/6	3/- 3/6	0 [illegible]	—	0 [illegible]	80,000	Pilbarra ...	Winchester House.
White Feather ...	2⅜ 2¼	2⅛ 2⅜	1 0	—	1 0 0	60,000	Coolgardie	28 & 29, S. Swithin's ln
Zepopan............*G*	7/6 8/6	7/6 8/	1 0	—	1 0 0	35,[illegible]	N W Austra	70, Bishopsgate-street
Zeehan Montana *S*	—	—	1 0	-/[illegible] May 93	1 0 0	68,[illegible]	Tasmania	11, Queen Victoria st
Zeehan Montana *S*	—	—	1 0	3½ May 93	[illegible]	10,600	Tasmania	11, Queen Victoria st

EUROPEAN MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share (£ s.)	Latest Dividend.	Called up per Share. (£ s. d.)	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alamillos ....*L*	10/- 15/-	½ ⅝	2 0	-/6 April '95	2 0 0	25,000	Spain	6, Queen-street-place
Avala ....*Q*	0 ⅛	0 ⅛	1 0	1/- May '93	1 0 0	51,584	Servia......	4, Tokenho. Bldgs.
Consett Ore	5½	5½	1 0	5/- July 94	1 0 0	55,200	Spain	19, Grey-st., N'castle
English Cr. Spelter	⅛ ⅜	⅛ ⅜	1 0	2½% Aug.'94	1 0 0	84,000	Lombardy	9, Queen-street-place
Fortuna ... .*L*	17/6 22/6 xd	1 1¼	2 0	1/- April '95	2 0 0	25,000	Spain	6, Queen-street-place
Libiola...............*C*	3⅛ 3¾	3¼ 3½	5 0	4/6 Apr. 95	5 0 0	50,400	Italy	Dashwood Ho., E.C.
Linares ....*L*	4¼ 4½	3¾ 4¼	3 0	4/6 April '95	3 0 0	14,998	Spain	6, Queen-street-place
Mason & Barry...*C*	2¾ 3	2⅝ 2⅞	5 0	2/- May.'94	5 0 0	185,172	Portugal	37, Cannon-street.
Oscar ....*G*	—	—	5 0	—	0 4 6	117,240	Norway ...	5A, Austin Friars.
Pestarena ....*G*	5/6 6/6	5/- 6/	3 0	—	3 0 0	67,809	Italy	6-7, Queen-street-pl.
Pontgibaud ......*SL*	—	—	20 0	11/6 Dec '94	20 0 0	14,000	Coueron...	6-7, Queen-street-pl.
Rio Tinto ....*C*	17⅜ 17½	16 9/16 16 11/16	10 0	5% July,'95	10 0 0	325,000	Spain	30, St. Swithin's-lane
Do. (Mort. Bonds)	—	104 105	100 0	5% July,'95	100 0 0	£1894,740	Spain	30, St. Swithin's-lane
Do. (2nd do.)	—	—	100 0	5% July,'95	100 0 0	£1024,860	Spain	30, St. Swithin's-lane
Do. (3rd do.)	—	—	100 0	5 p.c. Apr. 95	100 0 0	£5[illegible]7,080	Spain	30, St. Swithin's lane
Ripanji ....*SQ*	2/6 3/6	2/- 4/-	1 0	—	0 19 0	95,000	Servia......	120, Bishopsgt-st. Wt
Tharsis.........*C Sul*	4⅜ 5¼	4⅝ 4⅞	2 0	4/- May,'95	2 0 0	625,000	Spain	Glasgow.
West Prus Pre. pref	—	—	10 0	8% July 95	10 0 0	365	Germany	Walbrook Ho., E.C.
West Prussian Pre.	—	—	10 0	8% July '95	10 0 0	5,450	Germany	Walbrook Ho., E.C.
West Prussian Or.	—	—	10 0	8% July,'95	10 0 0	14,050	Germany	Walbrook Ho., E.C.
Wohlfahrt ....*L*	—	—	1 0	3% Dec.'94	1 0 0	99,634	Prussia ..	17, Victoria-st., S.W.
Wohlfahrt	—	—	1 0	3% Dec.'94	0 10 0	9,090	Prussia ...	17, Victoria-st., S.W.

INDIAN AND ASIATIC MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Asia Minor Pref. *Sl.*	—	—	0 10	—	0 10 0	42,430	Asia Minr	2, Metal Ex. Bldgs.
Do. Ord. ...	—	—	0 10	—	0 10 0	59,838	Asia Minr	2, Metal Ex. Bldgs.
Balaghat Mysore *G*	3/6 4/-	3/- 4/-	1 0	—	0 19 0	159,945	India	6-7, Queen-street-pl.
Burma Ruby......*R*	17/- 18/-	17/6 18/6	1 0	—	0 18 0	298,551	Burmah...	Suffolk House, E C.
ChampionReef...*G*	4 11/16 4 13/16	4⅜ 4¾	1 0	4/- Sept.'95	1 0 0	200,000	India	6-7, Queen-street-pl.
Colar Central ...*G*	1/3 1/9	1/6 2/-	1 0	—	1 0 0	200,000	India	Dashwood Ho., E.C.
Coromandel...... *G*	13/- 15/-	7/16 9/16	1 0	—	0 15 0	95,000	India	6-7, Queen-st.-place.
GoldFldsMysore *G*	21/- 22/-	23/- 24/-	1 0	1/- July '92	1 0 0	275,000	India	6-7, Queen-street pl.
Hyderabad Dec....	4⅛ 4⅜	4⅛ 4⅜	10 0	—	10 0 0	115,000	Deccan ...	16, St. Helen's-place.
Kempinkote GdFd	2/6 3/-	2/6 3/-	0 5	—	0 3 6	750,000	India	6-7, Queen-st.-place.
Mysore .... *G*	2⅜ 2¾	2¾ 2⅞	1 0	2/6 June '95	1 0 0	248,354	India	6-7, Queen-street pl.
My. Harnhalli ...*G*	3/9 4/3	3/9 4/3	1 0	—	0 18 0	100,007	India	2, East India Avenue
Mysore Reefs ...*G*	9/- 10/-	9/6 10/	1 0	—	1 0 0	160,000	India	6-7, Queen-street-pl.
Mysore West(N)*G*	17/6 18/-	18/- 19/-	1 0	—	0 19 0	127,408	India	Dashwood Ho., E.C.
Mysore Wynaad *G*	17/6 18/6	18/- 19/-	1 0	—	0 19 0	125,000	India	Dashwood Ho., E.C.
Nine Reefs ......*G*	2/9 3/3	2/9 3/3	0 10	—	0 10 0	250,000	India	6-7, Queen-street-pl.
Nundydroog......*G*	1⅞ 2	2 2⅛	1 0	1/6 July.'95	1 0 0	200,000	India	6-7, Queen-street-pl.
Ooregum (Df.O.)*G*	3 5/16 3 7/16	3 5/16 3 7/16	1 0	2/- Aug.'95	1 0 0	145,000	India	6-7, Queen-street-pl.
Do. (10% Pref.).	3 15/16 4 1/16	4 1/16 4 3/16	1 0	4/- Aug. 95	1 0 0	107,011	India	6-7, Queen-street-pl
Do. (10% Pref.).	3¼ 3⅜	3¼ 3⅜	1 0	2/6 Apr.'95	0 5 0	12,989	India	6-7, Queen-street-pl.
Pahang Kabang *T*	1/16 3/16	1/16 3/16	1 0	—	1 0 0	200,000	Malay Pn.	4a, Jeffrey's sq., E.C
Straits Developmt.	1⅜ 1⅝	1⅜ 1⅝	1 0	—	0 19 0	184,292	Pahang ...	15, Copthall Avenue.
Yerrakonda ......*G*	1/6 2/6	1/6 2/-	0 4	—	0 2 6	187,491	Mysore ...	6-7, Queen-street-pl.

NORTH AMERICAN MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alaska Mexican...*G*	1⅛ 1¼	1⅛ 1¼	$5	7 1-5d. July,95	$5	180,000	Alaska......	30, St. Swithin's-ln
Alaska Treadwell *G*	4¾ 5 xd	4⅝ 4⅞	$25	1/6 July,'95	$25	200,000	Alaska... ..	30, St. Swithin's-ln.
Almada and T....*S*	-/6 -/9	-/6 -/9	2/6	—	0 1 10	351,008	Mexico ...	6, Queen-street-place
American Belle...*S*	1/3 1/9	1/3 1/9	1 0	-/6 Mar.'91	1 0 0	398,890	Colorado	25A, Old Broad-street
Anglo Mexican ...*S*	—	—	5 0	3/- Jan.'90	5 0 0	74,850	Mexico ...	23, College Hill.
Arizona (Pref.) *Cu*	50/- 50/3	—	4 0	1/- July '95	4 0 0	158,920	Arizona...	74, Geo.-st., Edinbor
Do. 6½% A Deben.	108	—	100 0	6½% May '95	100 0 0	£135,300	Arizona...	74, Geo.-st., Edinbor
Do. 7% B Deben.	99½	—	100 0	7% May '95	100 0 0	£181,300	Arizona...	74, Geo. st. Edinbor
De Lamar.........*GS*	22/- 24/-	22/ 24/	1 0	1/- July '95	1 0 0	400,000	Idaho......	6, Draper's-gardens.
Dickens Custer *GS*	2/3 2/9	2/3 2/9	1 0	—	0 19 9	420,000	Idaho.....	Winchester Ho. E.C
Elkhorn ....*S*	6/6 7/6 xd	6/ 7/	1 0	-/3 July '95	1 0 0	175,007	Montana	6, Draper's-gardens.
Emma ....*S*	-/9 1/3	1/- 1/3	0 5	—	0 5 0	403,618	Utah	15, Geo-st. Mansn. Ho
Gen. M'g. Assoc. ...	8¼ 7	6¼ 7	5 10	14/- Apr. 95	5 10 0	27,469	C. Breton	Blomfield House
Golden Feather *G*	14/6 15/6	14/6 15/6	1 0	—	1 0 0	180,000	California	St. Stephens Cs E C.
Golden Gate ......*G*	5/- 6/-	5/ 6/	1 0	—	0 19 6	79,600	California	St. Stephens Cs E.C
Golden Leaf...... *G*	3/- 3/6	2/9 3/3	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Harquahala... .. *G*	3/6 4/6	4/- 5/-	1 0	-/6 Oct.,'94	1 0 0	300,000	Arizona ...	6, Draper's Gardens.
Holcomb Valley *G*	1/9 2/3	2/ 2/6	0 5	—	0 5 0	540,000	California	14, Cornhill, E.C.
Idaho...............*GS*	5/3 5/9	5/6 6/-	0 5	-/2 Dec. 94	0 5 0	143,439	Idaho ...	140, Leadenhall-st.
Jackson Goldfields	2/3 2/9	2/7½ 2/10½	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk (New)*G*	—	1/6 2/-	1 0	-/6 Dec.'92	0 19 3	285,000	Montana	Dashwood House.
La Plata.............*S*	2/- 2/6	2/- 2/6	0 5	1/3 Oct.'82	0 4 6	405,000	Colorado	11, Poultry, E.C.
La Yesca ....*GS*	4/- 5/-	4/ 5/	1 0	—	0 19 6	200,000	Mexico ...	20, Bucklersbury, EC
Mammoth Gold ...	—	—	1 0	—	1 0 0	400,000	Pnal, Ariz.	257, Winchester Ho.
Mesq. d'l Oro (P) *G*	—	—	5 0	—	5 0 0	10,000	Mexico ...	Dashwood Ho., E.C.
Mesq. d'l Oro (D) *G*	—	—	5 0	—	5 0 0	10,000	Mexico . .	Dashwood Ho., E.C.
Montana .... *GS*	11/- 12/-	11/16 13/16	1 0	-/3 July '95	0 19 0	657,158	Montana	Gresham House, E.C.
New Colorado ...*S*	—	—	1 0	—	0 17 0	85,000	Colorado	Abchurch Cham. E.C
N. Gold Hill......*G*	2/6 3/	2/6 2/-	1 0	—	0 19 9	191,045	NCarolina	15, George-st., E.C.
New Guston ....*S*	11/3 13/9	11/3 13/9	1 0	1/- Oct.'92	1 0 0	110,000	Colorado	25A, Old Broad-st.
New Hoover Hill *G*	—	—	0 10	-/9 Dec.'85	0 10 0	120,000	NCarolina	Langthorne Ho., E.C.
Palmarejo ......*GS*	3/- 3/6	3/- 3/6	1 0	—	1 0 0	418,888	Mexico ...	4, Copthall-building
PinosAltos(Df)*GS*	5/ 6/	5/ 6/	1 0	-/6 Mar.'90	1 0 0	100,000	Mexico ...	110, Cannon-street.
Do. 15% Cum Pref	—	—	1 0	—	1 0 0	60,000	Mexico ...	110, Cannon street.
Richmond ...*GSL*	15/ 17/6	15/ 17/6	5 0	1/- Nov.'94	5 0 0	54,000	Nevada ...	44, Coleman-street.
Sierra Buttes ...*G*	10/ 12/	9/ 11/	2 0	-/6 Apr.'95	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. *G*	10/ 12/	10/ 12/	2 0	-/9 Apr.'95	2 0 0	140,265	California	138, Leadenhall-st.
Springdale.........*G*	2/- 2/6	2/3 2/9	$1	2d Aug.,94	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1¼ 1⅜	1¼ 1⅜	1 0	3/- Feb.'95	1 0 0	26,000	Colorado	5, Lawrence P. Hl. E C

SOUTH AND CENTRAL AMERICAN MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share	Latest Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Anglo-Chilian *PlN*	9 9½	—	10 0	13/11 1-5 Jun 95	10 0 0	35,000	Antofagst.	123, Bishops.-st. W.
Do. 6% RylstMB	107 109	—	100 0	6% July,'95	100 0 0	£200,000	Antofagst.	123, Bishops.st. W.
Antio. (Pref.) *G.S.*	—	—	1 0	-/6 Mar.'90	1 0 0	22,820	Colombia	184, Gresham Ho.
Antioquia (ordiny)	—	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham Ho.
Caratal............ *G*	1/3 1/6	1/6 1/9	2/6	—	0 2 6	1,330,000	Venezuela	57, Moorgate-st. E.C
Caylloma.............*S*	1⅜ 1⅞	1⅝ 1⅞	2 0	1/- Apr. 94	2 0 0	125,000	Peru	52, Leadenhall street
Colon ....*G*	1/- 1/6	1/- 1/6	0 5	—	0 4 0	200,000	Colombia	5, Copthall-bdgs., E.C
Colorado Nit. ....*N*	1¾ 2¼	—	5 0	4/- May,'95	5 0 0	32,000	Chili	12, King-st., Liverp'l
Colombia............*G*	—	—	20 0	10 frs. Aug.94	20 0 0	—	Venezuela	Ciudad Bolivar.
Colombian Hy...*G*	12/ 14/ xd	13/ 15/	1 0	1/- July,'95	1 0 0	75,000	Colombia	10, Blomfield-street
Copiapo ....*C*	2 2⅜	1⅞ 2⅛ xd	2 0	1/6 May '95	2 0 0	100,000	Chili	Dashwood House, E.C
Darien "A" ......*G*	2⅜ 3	2¾ 3	1 0	—	1 0 0	49,563	Colombia	Manchester.
Don Pedro.........*G*	5/ 6/	5/ 6/-	1 0	—	0 18 6	133,102	Brazil......	24-5, Devonsh. Ch. E.C
El Callao ....*G*	7/6 12/6	7/6 12/6	5 0	9½d Feb,'94	5 0 0	257,600	Venezuela	8, Bishopsgt.-st, Wn
Frontino & B. ...*G*	22/6 25/3	22/6 25/-	1 0	1/- July '95	1 0 0	128,362	Colombia	184, Gresham House
Glenrock ....*G*	1/6 2/-	2/- 2/6	1 0	—	1 0 0	109,[illegible]	Arg. (A.1.)	3-5, Queen-street, E.C
Gravel...............*G*	3/6 4/6	4/- 5/-	1 0	—	0 18 6	100,000	Colombia	10, Blomfield-street
Guadalupe ....*GS*	3/6 5/-	3/6 5/	1 0	—	1 0 0	120,000	Honduras	11A, [illegible]

"THE MINING JOURNAL" SHARE LIST—(Continued)

SOUTH AND CENTRAL AMERICAN MINES—(Continued).

Name.	Closing Price, Aug. 2, 1895	Closing Price July 26, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Huanchaca ......S	—	—	5 0	4/- Sept. '94	5 0 0	320,000	Bolivia ..	10, Avnu. d'Alma, Paris
Javali ......G	—	—	0 2	8½ % '91	0 2 0	105,234	Nicaragua	139, Cannon-street.
Julia Taltal ......N	⅜ ⅝	—	1 0	—	1 0 0	200,000	Chili	79½, Gracechurch-st.
Lagunas ......N	4¾ 5¼	—	5 0	15p.c. Dec. '94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro ......N	6 6½	—	5 0	7/6 June 95	5 0 0	110,000	Chili	70, Gracechurch st.
Liverpool ......N	10¼ 11¼	—	5	15/- May, 95	5 0 0	22,000	Chili	Liverpool.
Loma ......G	1/3 1/9	1/6 2/-	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building.
London Nit......N	1½ 2	—	3 0	3/4¾ Nov. '89	5 0 0	10,000	Chili	9, Gracechurch-st
London Nit. (Pref.)	3⅛ 4	—	5 0	8% Nov. '94	5 0 0	22,000	Chili	9, Gracechurch-st
Macate	1/9 2/3	1/9 2/3	0 2	—	0 2 0	200,000	Peru	11, Old Broad-st., E.C
New Tamarugal N	⅛ ¼	—	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 8 % Cum Pref	7/16 9/16	—	1 10	8 p.c. Feb. '95	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
Do. 6 p.c. Debs ...	83 85 xd	—	100 0	6 p.c. Aug. '95	100 0 0	£260,000	Tarapaca	50, Lime-street, E.C
Orita ......G	1/3 1/9	1/3 1/9	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street.
Ouro Preto ......G	—	—	1 0	1/- July '95	1 0 0	80,000	Brazil	6, Queen-street-place
Pac. & Jazpampa N	2½ 3	—	5 0	4/- May, '95	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Primitiva ......N	1¼ 1¾	—	5 0	20% Oct. '89	5 0 0	40,000	Chili	Liverpool.
Quebrada C	3/ 5/	3/ 5/	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	38, Nicholas Lane.
Rosario ......N	5 5½	—	5 0	5 p c July '95	5 0 0	120,000	Chili	57½, Old Broad-street
Rosario (5% Deb.)	108 109	—	100 0	5% April '95	100 0 0	£475,000	Chili	57½, Old Broad-street
Do. Huara Deb Scrp	106 109	—	100 0	5% July, '95	100 0 0	£200,000	Chili	57½, Old Broad-street
St. John del Rey G	15/16 17/16	15/16 17/16	1 0	10% June '82	1 0 0	323,090	Brazil	Finsby. Ho., Blmf'd st
San Donato ......N	1¾ 2¼	—	5 0	2/6 May, '95	5 0 0	32,000	Chili	12, King-st., Liverp
San Jorge ......N	4¾ 5¼	—	5 0	12/6 May '95	5 0 0	75,000	Chili	9, Gracechurch-st.
San Pablo ......N	1¾ 2¼	—	5 0	2½% Nov., '94	5 0 0	32,000	Chili	Gracechurch-st
Santa Barbara ...G	—	—	0 10	1/3 Dec. '86	0 10 0	60,000	Brazil	Liverpool
Santa Elena ......N	⅜ ⅝	—	5 0	5/- Oct. '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita ......N	2⅛ 3⅛	—	5 0	10/- May, '95	5 0 0	20,000	Chili	Dashwood House, E.C
San Sebastian ...N	1⅝ 1⅞	—	5 0	5/ May, '95	5 0 0	29,000	Chili	Dashwood House, E.C
Segovia ......G	—	—	5/-	—	0 5 0	120,000	Colombia	5, Copthall-buildings
Sucre Pref. ......G	—	—	1 0	10% July '95	0 15 0	840	Colombia	23, St. Swithin's ln.
Sucre Ord. ......G	—	—	1 0	10% July '95	1 0 0	10,000	Colombia	23, St. Swithin's ln.
Tolima "A" ......S	7¾ 8¼	7 8	5 0	10/- July, '95	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B" ......S	6½ 7	6 6½	5 0	10/- July, '95	5 0 0	6,000	Colombia	18, Finsbury-circus.
Vic. & Altamira ...	1/9 2/3	1/9 2/3	0 5	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
Do. Pref.	2/3 2/9	2/3 2/9	—	—	—	—	—	
West Indian......G	—	—	0 1	—	0 1 0	1,725,585	Singo. Dm	110, Cannon-street.

AFRICAN MINES.

Name.	Closing Price, Aug. 2, 1895	Closing Price July 26, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Abercorn Reef ...G	-/9 1/3	1/1½ 1/4½	0 5	—	0 4 0	—	Millwood	16, Tokenhouse Yard
Abbott's Con. Reefs	1⅛ 1¼	1⅛ 1¼	1 0	—	1 0 0	—	De Kaap	Broad Street Avenue.
African Alluvial ...	11/16 13/16	1⅛ 1⅜	1 0	—	1 0 0	130,000	Mozambiq	11, Poultry.
African Alluvial ...	11/ 12/	11/ 12/	1 0	—	0 3 6	20,000	Mozambiq	11, Poultry.
African Coal	7/ 7/6	6/10½ 7/1½	1 0	—	0 16 6	300,000	Middlebrg	19, St. Swithin's-lane
African Gold Con.	2/3 2/9	2/3 2/9	0 10	20 p.c. Jan. '95	0 8 0	300,000	Mossel By	16, Tokenhouse-yard
African Gold Ryco.	1⅛ 1⅜	1⅛ 1⅜	1 0	2/- Oct. 94	1 0 0	175,000	—	23, College Hill.
Afrikander ......G	3¼ 3¾	2⅝ 2¾	1 0	—	1 0 0	40,000	Transvaal.	19, St. Swithin's-lane
Agnes Block ......G	10/ 12/6	7/16 9/16	1 0	—	1 0 0	78,507	Transvaal.	54, Old Broad-street.
Alexandra Estate G	19/- 20/-	12/- 13/-	1 0	—	1 0 0	225,000	Rand	Warnford Court, EC.
Anglo-French Exp.	4 13/16 4 15/16	4 4⅛	5 0	12½% May 95	5 0 0	30,300	S. Africa	170, Winchester Ho.
Do. Matabeleland	5⅝ 6	4 4⅜	1 0	—	1 0 0	39,750	Matabld.	Winchester House.
Appantoo ......G	—	—	1 0	—	1 0 0	77,885	West Cost	Dashwood House.
Aurora ......G	1⅜ 1⅝	1 5/16 1 7/16	1 0	5% Mar, '93	1 0 0	65,000	Rand	8, Old Jewry.‡
Do West United.	3⅞ 3⅝	3 13/16 3 1/16	1 0	—	1 0 0	100,000	Rand	1, Crosby Square.
Balkis Eersteling G	7/9 8/3	7/9 8/3	0 10	—	0 10 0	520,000	Transvaal.	85, Gracechurch-st.
Balkis Land	8/ 8/6	8/3 9/3	0 10	—	0 10 0	520,000	Transvaal.	85, Gracechurch-st.
Banket ......G	10/ 11/	9/ 10/	1 0	—	1 0 0	200,000	Rand	Johannesburg.
Bantjes Reef ......G	4⅜ 5	4⅜ 5⅜	1 0	—	1 0 0	83,000	Rand	Warnford-court.†‡
Barrett ......G	21/ 22/	19/ 20/	0 10	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	2 11/16 2 13/16	2 7/16 2 9/16 xrts	1 0	3/- July 95	1 0 0	200,000	Bechuana.	19, St. Swithin's-lane.
Bech. Trad g Assoc.	1 7/16 1 9/16	1 7/16 1 9/16	1 0	10 p c May, 95	1 0 0	100,000	Bechuana.	19, St. Swithin's-lane.
Big Golden Quarry	2/6 3/	3/3 3/9	5/-	—	0 5 0	483,226	Kaap Rivr	4, Bishpsgte. st. Wn.
Block "B" Lang.	36/3 38/9	28/6 29/6	1 0	—	1 0 0	535,000	Rand	8, Princes-st., E.C.‡
Booysen Land ...G	3⅝ 3⅞	3¾ 3⅞	1 0	—	0 12 0	95,000	Transvaal.	4, Tokenhouse-blds
Brit. S. A. Char. ...	5⅝ 5¾	4 9/16 4 11/16 xrt	1 0	—	1 0 0	2,000,000	S. Africa	15, St. Swithin's-lane
Buffelsdoorn ......G	8⅛ 8¾	8 8⅜	1 0	—	1 0 0	250,000	Potchefstr	7, Lothbury.
Buluwayo Synd. ...	2⅛ 2⅜	2⅛ 2⅜	1 0	—	1 0 0	12,000	Matabld.	10, Helen's Place.
Cape Asbestos	2¼ 2⅜	2⅛ 2⅜	1 0	—	1 0 0	50,311	Orange Rv	19, St. Swithin's-lane
Cape Copper C	2¼ 2⅜	2 2¼	2 0	1/3 June, '95	2 0 0	300,000	Cape Col.	9, Queen-street-place.
Do. 6 % Pref. ...	2 2⅜	2 2¼	2 0	1/3 June, '95	2 0 0	45,000	Cape Col.	9 Queen-street-place.
Cassel Colliery	6 6¼	6¼ 6¾	1 0	10pc July '95	1 0 0	75,000	Johanbrg.	99, Cannon-street.
Cen. Montrose... G	3/- 4/-	3/- 4/	1 0	—	0 18 6	69,000	Transvaal.	15, George st. Mn. Ho.
Champ d'Or...... G	4⅛ 4⅜	3¾ 4	1 0	4/- Jan. 95	1 0 0	116,016	Rand	8, Old Jewry, E.C.
Champ d'Or Deep G	2¾ 3	2 13/16 2 15/16	1 0	—	1 0 0	117,499	Rand	8, Old Jewry, E.C.
City and Suburb. G	26¾ 27¼	26⅞ 27¼	1 0	10/- June '95	1 0 0	75,000	Rand	96, Gresham Ho., E.C
Coetzeestroom ...G	9/6 10/6	9/9 10/3	0 5	—	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Bultfontein D	29/6 30/6	29/- 30/-	1 0	3½% Sept. '94	1 0 0	721,500	Griqualnd	62, Lombard-st.
Con. Deep Levels G	5⅜ 5¾ xd	5⅜ 5⅝	1 0	20% June 95	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A.	12⅜ 12⅞	12 12¼	1 0	5/- May '95	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 6 % Pref.	24/ 25/	23/ 24/	5 0	7 1-5d June '95	1 0 0	1,243,999	S. Africa	8, Old Jewry.
Do. 5½ % Deben...	111 112	111 112	1 0	5½ Jan, '95	5 0 0	610,000	S. Africa	8, Old Jewry.
Crown Reef ......G	10⅜ 10⅝	10⅜ 10⅝	1 0	25% June '95	1 0 0	120,000	Rand	120, Bishopsgt st. Wn‡
De Beers Consol. D	24⅛ 24⅜	22⅞ 23	5 0	12/6 July '95	5 0 0	789,791	Transvaal.	62, Lombard-street.
Do. 5 % 1st Deb....	108 109	108 109	—	5% July, '95	—	£3,500000	Transvaal.	62, Lombard-street.
Do. 5½ % Bul. Ob.	106½ 107½	104¾ 105¼	—	5½% Apr. 95	—	720,000	Transvaal.	62, Lombard-street.
Durban Roodept. G	8 8¼	7 15/16 8 1/16	1 0	3/- July, '95	1 0 0	£125,000	Rand	28, Leadenhall-bldgs
Do Deep.........	4¾ 5	4⅝ 4⅞	—	—	—	—	—	
Eastleigh ......G	2 7/16 2 9/16	2¾ 2⅞	1 0	—	1 0 0	240,000	Klerksdrp	Winchester House.
East Rand......... G	6⅝ 6¾	5 15/16 6 1/16	1 0	—	1 0 0	570,000	Rand	170, Winchester-ho.
Evelyn ......G	1 1⅛	1 1⅛	1 0	10% Jan. '89	1 0 0	66,000	Rand	28, Old Jewry, E.C.
Exploration	2 2¼pm	2⅛ 2⅜ pm	1 0	1/- Dec. '94	0 4 6	148,000	S. Africa	30, S. Swithin's-ln.‡
Ferreira ......G	16¼ 17	16½ 17 xd	1 0	65% June '95	1 0 0	45,000	Rand	120, Bishopsgt st. Wn‡
Forbes Reef (Nw) G	10/ 12/6	⅜ ⅝	1 0	—	1 0 0	105,000	De Kaap	45-6, Leadenhall-st.
Geldenhuis Deep G	9⅛ 9¼	9⅛ 9⅜	1 0	—	1 0 0	265,000	Transvaal.	30, St. Swithin's-lane.
Geldenhuis Est. G	6⅜ 6¾	6 7/16 6 9/16 xd	1 0	30% July '95	1 0 0	187,500	Rand	120, Bishopsgt st. Wn‡
Do. Main Reef	23/9 26/3xd	1 5/16 1 7/16	1 0	5% July, 95	1 0 0	150,000	Rand	Warnford Court, E.C
George and May G	1⅞ 2⅛	1 13/16 1 15/16	1 0	—	1 0 0	112,750	Rand	7, Great St. Helen's.
George Goch ...G	3¼ 3⅜	3 5/16 3 9/16	1 0	—	1 0 0	100,000	Rand	Johannesburg.
Ginsberg ......G	1⅞ 2⅛	1⅞ 2⅛	1 0	—	1 0 0	130,000	Driefton.	Warnford Court, E.C‡
Glencairn ......G	4¼ 4⅜	4¼ 4⅜xd	1 0	15 pc June 95	1 0 0	200,000	Rand	2, Drapers-gardens.
Gold Coast Devel.	6/6 7/6	6/- 6/6	—	—	—	—	—	11, Queen Victoria-st
Gold Estates T. ...G	⅜ ⅝	9/16 11/16	1 0	15% Dec. '89	0 10 0	130,000	Transvaal.	46, Queen Victoria-st.
Gld. Fis. Deep...G	7¼ 7⅝	7 7¼	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G. F. of Mashonld.	15/ 17/6	¾ 1	1 0	—	1 0 0	200,000	Mashonld	19, St. Swithin's ln.
G F. Tierra d' Fuego	—	—	0 4	—	0 4 0	400,000	Mozambiq	2, Tokenhouse Bldgs
Grahamstown .. G	17/- 18/-	—	1 0	—	1 0 0	150,000	Rand ...	14, Throgmorton-st.
Graskop ......G	9/6 10/	9/6 10/6	0 5	2½% Mar. '91	0 5 0	400,000	Lydenburg	85, Gracechurch-st.
Griqualand W....D	8 8¼	7¾ 8	0 0	2% Sept '94		105,700	Transvaal	62, Lombard-street
Guy Fawkes...... G	11/6 12/6	11/6 12/6	0 10	—	10 0 0	—	—	
Gwelo Exploratn.	5/6 6/6	6/3 6/9	10 10	—	0 8 0	24,000	Manica	Broad-st. Avenue
Harmony (Pref) G	8/- 9/-	8/3 8/9	1 0	—	1 0 0	160,000	—	79¼, Gracechurch-st.
Henderson's Trans	4 11/16 4 13/16	4⅝ 4⅞	1 0	—	1 0 0	200,000	Zoutpan.bg	85, Gracechurch st.
Henry Nourse ...G	7 7¼	6⅞ 7	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.

AFRICAN MINES—(Continued).

Name.	Closing Price, Aug. 2, 1895	Closing Price, July 26, 1895.	Am't. of Share	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£ s.		£ s. d.			
Joe's Reef ......G	5/- 7/6	7/16 9/16	1 0	—	1 0 0	57,404	De Kaap ...	21, Mincing Lane.
Johannesburg G.F	5/6 6/6	6/ 7/	1 0	—	1 0 0	99,537	Johanburg	31, Lombard st., E.C.
Johannes. Invest.	4⅜ 4⅝ xd	4¼ 4⅞ xd	1 0	20 p c July. 95	1 0 0	650,000	—	7, Lothbury.
Johannesburg Pur	8¼ 8¾	8⅛ 9	1 0	2½% Nov., '94	1 0 0	21,000	Rand.........	Johannesburg.
Jubilee ......G	10¼ 10¾	11 11¼xd	1 0	10% July '95	1 0 0	30,000	Rand.........	8, Old Jewry.†
Jumpers ......G	8⅜ 8⅝	7¼ 7⅞	1 0	25% July '95	1 0 0	100,000	Rand.........	120, Bishopsgt st. Wn.‡
Kimberley .. ..D	13/16 15/16pm	⅝ ¾ pm	1 0	—	0 10 0	98,672	Kimberley	13, Finsbury circus.
Kimberley Rdpt....	3⅝ 3⅞	3⅞ 4	1 0	—	1 0 0	125,000	Kimberley	2, Drapers-gardens.
Klerksdorp	28/ 29/	27/3 27/9	0 10	—	0 9 0	403,000	Klerksdorp	110, Cannon St.
Koffyfontein......D	18/9 21/3	13/16 1 1/16	1 0	—	1 0 0	125,000	Jacobsdaal	120, Bishopsgt st. Wn
Langlaagte Est. G	6⅜ 6⅝	5 13/16 5 15/16	1 0	25 p.c. June '95	1 0 0	470,000	Rand.........	59, Holborn Viaduct
Do. Royal	3⅜ 3⅝	3½ 3⅝	1 0	5% Sept. '93	1 0 0	100,000	Rand.........	2, Drapers-gardens.
Lionsdale	10/ 11/	11/- 12/-	1 0	—	1 0 0	115,000	Lydenburg	85, Gracechurch-st.
Lisbon-Berlyn .. G	8/3 8/9	8/9 9/3	2/6	—	0 2 6	881,233	Lydenburg	110, Cannon-street
London & S. A. Ex.	13¼ 13¾	13¼ 13¾	0 10	3/- Mar. '95	0 10 0	100,000	S. Africa ...	19, Finsbury-circus.
Lower Roodepoort	7/6 8/6	7/9 8/3	1 0	—	1 0 0	150,000	Vlakfontn	8, Old Jewry, E.C.
Luipaards Vlei Est.	32/6 33/6	32/ 33/	1 0	6% Mar. '90	1 0 0	319,003	Rand.........	Warnford-court.‡
Main Reef (New) G	2¼ 2⅜	1⅜ 1⅝	1 0	—	0 10 0	300,000	Rand.........	8, Old Jewry.
Mashon. Agency...	3 9/16 3 11/16	3 7/16 3 9/16	1 0	—	1 0 0	100,000	Mashonald	8, Old Jewry, E.C.
Massi Kessi	7/- 8/-	9/6 10/6	0 10	—	1 0 0	60,000	Manica	Broad Street Avenue
May Con. (New) G	3⅝ 4⅛	3 13/16 3 15/16	1 0	10 p c Apr. 95	1 0 0	238,500	Rand	4, Lothbury.‡
Metropolitan (N) G	2⅛ 2⅜	2⅛ 2⅝	1 0	—	1 0 0	75,020	Rand.........	1, Crosby Square.†
Meyer & Charl....G	7⅛ 7⅜	7½ 7¾	1 0	25% June, '95	1 0 0	71,687	Rand.........	120, Bishopsgt-st. Wn‡
Modderfontein... G	16 16¼	14⅜ 14⅝	1 0	—	1 0 0	200,000	Rand......	Warnford-court.‡
Montrose......... G	1⅝ 1⅞	1⅛ 1⅜	1 0	3/- Feb. '90	1 0 0	70,000	De Kaap ...	65, New Broad-street
Moodies G.&E.,...G	1⅝ 1¾	1⅛ 1⅜	1 0	-/4 May '90	1 0 0	240,000	De Kaap ..	8, Old Jewry.‡
Mozambique.........	1 11/16 1 13/16	31/6 32/6	1 0	—	1 0 0	400,000	S.E. Africa	Broad-street House.
Namaqua C	⅞ 1⅛	⅞ 1⅛	2 0	2/6 July '91	2 0 0	94,331	Namaqualnd	34, Leadenhall-blds.
New African	9⅛ 9⅜	8⅛ 8⅜	1 0	—	1 0 0	190,000	—	83, Hatton Garden.
New Ariston.........	1¼ 1½	1¼ 1½	1 0	—	1 0 0	21,180	Klerksdorp	Winchester House.
N. Belgium Land...	7/- 9/-	6/ 7/	1 0	—	0 17 0	167,462	Waterberg.	33, Cornhill.
New Chimes...... G	3⅛ 3⅜	2 13/16 2 15/16	1 0	15 pc July '95	1 0 0	100,000	Rand.........	8, Old Jewry, E.C
New Clewer Estate	3 7/16 3 9/16	3 5/16 3 7/16	1 0	10% Feb. '95	1 0 0	100,000	Lydenburg	120, Bishopsgt st. Wn‡
New Crœsus...... G	3 3¼	3 3⅛	1 0	5% Aug. '92	1 0 0	255,000	Langlaagte	120, Bishopsgt. st. Wn
New Gordon......D	7/6 8/6	7/6 8/6	1 0	5% Dec. '89	1 0 0	404,344	Griqualand	110, Cannon-street.
New Heriot ......G	11 11¼	10⅞ 11⅛	1 0	50 p c July 95	1 0 0	88,750	Rand.........	96, Gresham Ho EC
New Jagersf. ...D	9 9¼	8⅜ 8⅞	5 0	10½ Mar., '95	5 0 0	100,000	Transvaal.	5, Copthall-buildings
N. Kleinfontein G	5¾ 6	5⅝ 5⅞	1 0	12½pc Mar, '95	1 0 0	82,500	Rand.........	Winchester House.
New Louis D'Or.. G	3/- 3/5	3/ 3/5	1 0	—	1 0 0	—	Rand.........	53, New Broad-street
New Primrose ...G	6⅞ 7⅛	6¾ 6⅞ xd	1 0	25pc. June '95	1 0 0	278,750	Rand.........	2, Draper's-gardens.
New Rand............	1/16 3/16 pm	⅛ ¼ pm	1 0	—	1 0 0	110,000	Rand......	Bartholomew-house
New Rietfontein G	5 5½	5 1/16 5 5/16	1 0	—	1 0 0	160,000	Rand.........	Warnford-ct., E.C.
New S. Augustine D	13/6 14/6	11/- 12/-	1 0	—	0 19 6	239,137	Griqu'ld W	30-1, St. Swithin's-ln
New Spes Bona...	2¾ 3	2 15/16 3 1/16	1 0	—	1 0 0	113,701	Rand.........	24, N. John-st., L'pl.
New Steyn Estate	2⅜ 2⅝	2¼ 2⅜	1 0	—	1 0 0	125,000	Heidelberg	19, Bury Street. E.C
New Virginia ...G	2/6 3/	2/ 3/	0 10	—	0 10 0	48,335	Transvaal	26, Budge-row, E.C.
Nigel .... G	7¼ 7⅜	7⅛ 7⅜	1 0	10% June '95	1 0 0	160,000	Rand.........	96, Gresham Ho., EC
Nigel Deep ......G	3¼ 3½	3 7/16 3 9/16	1 0	—	1 0 0	195,000	Heidelberg	8, Old Jewry.
Nigel Extension ...	9/3 9/9	8/6 9/-	10/-	10% June '95	0 10 0	160,000	Rand.........	Basing House, E.C.
North Sheba	4/9 5/3	5/- 5/6	—	—	—	—	—	88, London Wall.
Nourse Deep.........	6⅞ 7⅛	6¾ 7	1 0	—	1 0 0	375,000	Rand.........	120, Bishopgt.-st., Wn.
Oceana	3⅛ 3¼	3 1/16 3 3/16	1 0	25/- Nov. '89	1 0 0	326,000	Transvaal	4, Sun Court, E.C
Oceana Develpmnt	1⅝ 1¾	1⅛ 1⅜	1 0	—	1 0 0	50,000	Transvaal	4, Sun Court, E.C
Ophir Concess. ...	5/6 6/6	3/6 4/6	0	—	0 18 6	111,857	E. C. Africa	31, Lombard-street.
Orange F.S.E. ....D	4⅛ 5	4¾ 5¼	1 0	10% July, 95	1 0 0	284,000	Orange F.S.	10, Moorgate-street.
Orion......... G	4¾ 4⅞	5 5⅜	1 0	10% Mar. '95	1 0 0	30,000	Rand.........	8, Old Jewry.
Otto's Kopje......D	5/6 6/-	6/3 6/9	1 0	—	1 0 0	437,888	Kimberley	110, Cannon-st., E.C
Paarl Central ... G	1 9/16 1 11/16	1 9/16 1 11/16	1 0	—	1 0 0	138,750	Transvaal	120, Bishopsgt st. Wn.
Pardy's Mozambq.	2⅜ 2⅝	2⅝ 3	0 10	1/- Jan. 95	0 10 0	13,000	S.E. Africa	Broad St. Avenue.
Pardy's Range	10/- 11/-	10/6 11/6	0 10	—	0 10 0	—	Manica......	Broad St. Avenue.
Piggs Peak ...... G	13/9 16/3	⅝ ¾	1 0	—	0 17 6	200,000	Swazielnd .	6, Queen-street-place
Piggs Peak ...... G	16/9 18/3	11/16 13/16	1 0	—	1 0 0	60,652	Swazielnd .	6, Queen-street-place
Pleiades............	1 1/16 1 3/16	1¼ 1⅜	1 0	—	1 0 0	140,000	Black Reef	
Potchefstroom...G	2 5/16 2 7/16	1⅜ 2	1 0	—	1 0 0	389,750	Potchefstrm	19, Bury-st., E.C.
President Land ...	10/ 11/	7/- 8/-	1 0	—	1 0 0	193,325	Transvaal	17, Basinghall Street
Princess Estate G	3⅜ 3⅝	3 1/16 3 3/16	1 0	—	1 0 0	185,000	Rand......	33, Cornhill, E.C.
Rand Central Ore	2¾ 2⅞	2 11/16 2 13/16	1 0	25 p c 94	1 0 0	115,000	—	15, Geo. St., Mn. Ho.
Randfontein......G	3¼ 3⅜	3 3⅛	1 0	—	1 0 0	2,000,000	Rand.........	59, Holborn Viaduct.‡
Rand Mines ......G	35 35½	33¼ 33½	1 0	—	1 0 0	332,798	Rand.........	120, Bishopsgt st. Wn‡
Rand-Rhodesia	2⅛ 2⅜	2 1/16 2 3/16	1 0	10 p.c. July '95	1 0 0	25,000	R&Rhodesa	123, Bishopsgt-st Wn
Read's Drift ......D	4⅜ 4⅝	2 5/16 2 7/16	1 0	—	1 0 0	37,000	Transvaal	19, Finsbury-circus.
Rhodesia Explo. ...	13¼ 13¾	11 11½	1 0	—	1 0 0	50,000	Mt & Mash'l	8, Old Jewry.
Robinson ....D	2 13/16 2⅞	2¼ 2½	1 0	—	1 0 0	350,000	Kaal Valley	8, Prince's-street.
Robinson ....G	9⅝ 9⅞	9¼ 9⅜ xd	5 0	6 p c July '95	5 0 0	550,000	M. Rf.'rand	28, Austin Friars, E.C
Robinson Randftn.	1⅛ 1⅜	1⅛ 1⅜	1 0	—	1 0 0	517,000	Rand.........	8, Prince's-street.
Roodepoort Deep	4⅜ 4⅝	4⅜ 4⅝	1 0	—	1 0 0	170,000	Rand.........	8, Old Jewry, E.C.
Roodepoort (Kim.)	3⅝ 3⅞	3 11/16 3 13/16	1 0	—	1 0 0	100,000	Rand.........	7, Lothbury, E.C.
Roodepoort Un. G	7⅛ 7⅜	7⅝ 7⅞	1 0	25% June, '95	1 0 0	130,000	Rand.........	Warnford-court.‡
Rose Deep............	5¾ 6¼	6 6⅜	1 0	—	1 0 0	300,000	M. Rf.'rand	30-31, S. Switn's. lane.
Rosenblock Tw'Rfs	⅞ 1	⅞ 1	1 0	—	1 0 0	60,000	Krugersdp	4, Tokenhouse bldgs.
Rothery Block......	1¼ 1⅜	1 5/16 1⅜	—	—	—	—	—	
Salisbury Gold ...	5 5¼	5¼ 5⅜	1 0	—	1 0 0	99,000	Rand	96, Gresham Ho., EC
Sheba ....G	2⅛ 2⅜	2 1/16 2 3/16	1 0	1/- Sept. '94	1 0 0	850,000	Lydenburg	18, S. Helen's place.
Sliati ....G	9/- 11/	7/16 9/16	1 0	—	0 18 6	119,000	Zoutpan'bg	4, Sun Court, E.C.
Simmer & Jack...G	16⅛ 16⅜	16⅛ 16⅜	1 0	10% June '95	1 0 0	250,000	Rand......	8, Old Jewry.
S. A. Gold Trust ...	8⅞ 9⅛	8⅞ 9⅛	1 0	50% June '95	1 0 0	250,000	S. Africa ...	8, Old Jewry.
Southern Geldnus.	6/- 7/-	5/9 6/3	1 0	—	1 0 0	120,000	Elandsfont	6, Great St. Helen's
Southern Land......	12/6 15/-	15/- 16/-	1 0	—	0 15 0	20,000	Grqld.W. & B. Bech	19, St. Swithin's-ln.
South West Rand	1⅜ 1⅝	1 13/16 1 15/16	1 0	—	1 0 0	158,000	Rand.........	Winchester House.
Spitzkop (New) G	1⅜ 1⅝	1 11/16 1 13/16	1 0	—	1 0 0	99,070	Lydenburg	15, Bishopsgt-st, Wt.
Stanhope ....G	1⅛ 1⅜	1¼ 1⅜	1 0	10p.c June, '95	1 0 0	34,000	Rand...	96, Gresham Ho., EC
Sutherland R. ...G	13/- 14/-	11/ 12/	1 0	—	1 0 0	220,000	Zoutpan'bg	Dashwood Ho.
Thistle Reef ...... G	4/3 4/6	3/9 4/3	0 5	—	0 5 0	547,976	Barberton ..	Copthall House
Trans. Coal Trust...	2¾ 2⅞	2 13/16 3 1/16	1 0	1/- Mar. '95	1 0 0	439,965	Rand	Broad-st. House, E.C
Trans. Est. & Dev.	1 11/16 1 13/16	1 7/16 1 9/16	1 0	—	1 0 0	285,700	Transvaal	76, Old Broad-st. E.C.
Trans. Gen. Assoc.	3⅝ 3⅞	3⅝ 3⅞	1 0	10% Mar. 95	1 0 0	210,000	—	30, S. Swithn's lane.
Trans. Gold Exp. G	8⅛ 8⅜	8⅛ 8⅜	1 0	1/- July '95	1 0 0	260,000	Transvaal .	Suffolk House, E.C.
Trans. Gold Fields	4⅛ 4⅜	4 4¼	1 0	—	1 0 0	135,000	S. A. R.	120, Bishopsgt-st. Wn
Trans. Land...	17/6 20/-	13/16 15/16	1 0	—	1 0 0	79,915	Transvaal .	33, Cornhill.
Trans. Land.........	10/- 12/6	⅝ ⅞	1 0	—	0 15 0	169,999	Transvaal .	33, Cornhill.
Treasury............G	3¾ 4	3¾ 4	1 0	12½% Sep. '94	1 0 0	60,000	Rand.........	Warnford Court.
U. G. F. of Manica	8/6 9/6	8/6 9/6	1 0	—	1 0 0	100,492	Manica......	Broad Street House.
Un. Ivy Reef......G	1 1/16 1 3/16	13/16 1 1/16	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal .	110, Cannon-street.
U. Langlaagte (N) G	2¾ 3	2⅞ 3⅛	1 0	—	1 0 0	146,000	Rand.........	85, Gresham Ho., E.C.
United Matabele...	1⅝ 1¾	1 11/16 1 13/16	1 0	—	1 0 0	75,000	Africa	19, S. Swithin's lane.
United Pioneer......	17/6 20/-	⅞ 1⅛	1 0	—	1 0 0	75,000	De Kaap	16, S. Helen's-pl., E.C.
Van Ryn .... G	9¾ 10	9 9/16 9 11/16	1 0	—	1 0 0	160,000	Rand.........	18, St. Swithin's-ln.
Van Ryn West......	5⅝ 5⅞	5⅜ 5⅝	—	—	—	—	—	
Village Main Reef	8½ 8¾	8½ 8¾	1 0	—	1 0 0	177,000	Rand.........	8, Old Jewry.
Wassau ....G	—	—	1 0	—	1 0 0	100,000	Gold Coast	147, Cannon-street
Wemmer ....G	12⅜ 12⅝	11⅜ 11⅞	1 0	100% July '95	1 0 0	55,000	Rand......	19, Bury-street.‡†
West Rand ....G	2⅞ 3⅛	3⅛ 3¼	1 0	—	1 0 0	240,000	Rand......	8, Old Jewry.
Willoughby's Con.	1 9/16 1 11/16	1⅛ 1⅜	1 0	—	1 0 0	700,000	Mashonald	3, Copthall-bldgs.
Witwatersrand G	9¼ 9⅝	8 13/16 8 15/16	1 0	—	1 0 0	250,000	Rand.........	19, Bury-st., E.C.
Wolhuter ....G	8⅛ 8¼	8⅛ 8⅝	1 0	10 p c Apr., '94	1 0 0	130,000	Rand.........	Warnford-court.†
Wolverand ....G	⅞ 1	⅞ 1	1 0	—	0 18 0	39,021	Transvaal	Blomfield House.
Worcester ....G	4⅜ 4⅞	4⅜ 4⅞	1 0	15% July '95	1 0 0	90,727	Rand.........	8, Old Jewry.‡
Zambesia Explora.	3⅛ 3⅜	3⅛ 3⅜	1 0	—	1 0 0	65,000	Transvaal .	13 George-st., E.C.

Matabeleland Central Estates Company (Limited).—The statutory meeting of the shareholders in this company was held on Thursday at the offices, 3, Copthall Buildings.—The Hon. J. Scott-Montagu, M.P., who presided, said that Willoughby's Company had undertaken to deliver 10,000 head of cattle on to the ground the company had acquired from them, but the area was so enormous that it was quite impossible to do this at once. They were, however, being collected, but the matter was not to be rushed, because the company wished, naturally, to get the best beasts they could. Of the 60,000 shares offered by the Willoughby's Company for subscription, 33,000 or 34,000 were absolutely allotted, and, of course, the Willoughby's Company took the remainder, in pursuance of the agreement. There was little else to be said except that the latest mail was very satisfactory. The fencing has now been proceeded with. According to the last advices, numerous prospectors had started from Buluwayo to prospect the gold belt which, no doubt, existed in the property, and the company had the right to peg 500 gold claims if they could find any profitable ones.—A vote of thanks to the Chairman concluded the proceedings.

A New Electric Furnace.—A recent paper by Messrs. Girard and Street describing a new electric fornace and its application for the transformation of carbon into graphite, is abstracted in a recent number of *L'Industrie Electrique*. The carbon is converted into graphite by passing the pulverised material across a space heated by the arc.

Portland-road Station, on the Underground railway, shows a decided novelty and improvement by exhibiting the name of the station in really decipherable characters. The letters are in glittering silver, and attract immediate attention. Would that all stations were similarly fitted.

The Mammoth Gold Mines (Limited).—An extraordinary general meeting of shareholders in the Mammoth Gold Mines (Limited) was held yesterday, at Winchester House, when resolutions voluntarily winding up the company, for the purpose of reconstruction, were unanimously carried, without discussion.

The Mysore Reefs (Kangundy) Company have sold the gold obtained in June for £899 17s. 5d.

— The share certificates of The Murchison New Chum Gold Mines (Limited) are now ready, and can be delivered in exchange for the following documents any day between the hours of 11 and 3 (Saturdays excepted):—1. Allotment letter; 2. Bankers' receipt (application); 3. Bankers' receipt (allotment; 4. Bankers' receipt (first call); 5. Bankers' receipt (second call).

— Dividend warrants for the 17th dividend of 1s. per share (free of income tax) in the De Lamar Mining Company (Limited) have been posted to all shareholders registered on the company's books on June 28.

— The dividend warrants on the preference shares of the Blue Spur and Gabriel's Gully Consolidated Gold Company for the balance of dividend for the year ending February 28 last have been posted.

— The Ooregum Gold Mining Company of India have sold the gold obtained in June for £22,570 10s. 1d.

SOUTH AFRICAN MINES.

GLEANINGS FROM CONTEMPORARIES.

Buffelskloof.

The latest report of Mr. William Scoble, the manager, is dated July 1, and is to the following effect:—He has commenced trenching across the reef series, but proposes to confine his operations to the South reef mainly. It is the same as the one opened on the adjoining farm, Leeuwfontein, where it is fairly rich about 200 yards from the East boundary of Buffelskloof. A deep kloof cuts across the section near the centre of the latter property, and Mr. Scoble has taken advantage of this to start a tunnel into the reef. It will give about 120 feet of backs. It is proposed to drive about 600 feet, and to sink three winzes, so that six stopes of 100 feet each would be opened. The ore in this block would be about 16,000 tons, since the reef is 3 feet wide on an average. The cost of driving is estimated to be 20s. per load, and that of sinking 22s. 6d. per foot, so that the total cost of actual development will come to about 15d. per ton at the outside. On the western section of the property trenching will be started to locate the position of the reef, after which a small shaft—8 by 5½ feet—will be sunk to explore it. By sinking 100 feet and driving west, backs of 130 feet will be obtained, owing to the rise of the ground. Coming into the property from the west the reef is 4 feet wide, and pans 7 dwts. In another six months a very large quantity of reef should be opened up, probably not less than 30,000 tons. Mr. Scoble expresses every confidence in the property.—*Johannesburg Star.*

Amazon Gold Mining Company.

It is reported on the best authority that an attempt will shortly be made to reconstruct this property. It is quite evident to everybody, who takes any interest in the concern, that strong measures are necessary in the present juncture. It is very probable that the venture will be rearranged upon a larger scale, and that the size of the property will be increased to a size which will be equal to something like 1200 claims. Messrs. Lace and Thompson, Bush and Taylor, will be mainly concerned in the reconstruction. The new capital will be £350,000, of which nearly one-third, or £100,000, will constitute the working capital. It may be mentioned that it is not proposed to put the whole pebble formation through the mill, or to quarry out half the block, as was assumed by an expert recently; only those reefs which are valuable will be mined and crushed. There is quite enough good rock without milling any of the low-grade leaders, of which there are scores. It may be added here that the working capital will be guaranteed by the parties who are making the reconstruction proposals.—*Johannesburg Star.*

The Simmer and Jack.

The northern portion of the property extends about a mile along the reef, with an average dip of 8000 feet. At about 4500 feet from the outcrop, it widens out to 2½ miles along the reef, south of the Rose Deep on the east, and the Geldenhuis Deep on the west. It is on this lower portion that the subdivision is effected. Under the proposed scheme, the parent company will retain 648 claims in the centre of the block, on which are situated all the present workings and machinery. This property, it is estimated, will have a 30 years' life, serving 280 stamps, and it is anticipated that that number will be at work within the latter half of next year. The West Simmer consists of 250½ claims, situated on the south-west portion of the property and immediately on the dip of the Geldenhuis Deep. For this ground the vendors receive £130,000, of which the parent company gets 70 per cent., or £91,000. The working and reserve capitals of the company will be ample, and the shareholders of the parent company will have the right to subscribe *pro rata* to their holdings. The property lies some 4500 feet from the outcrop, and the reef should be struck at about 2200 feet. The East Simmer consists of 458 claims, situated immediately to the south of the Rose Deep, on the south-east portion of the property. Of these 458 claims the parent company contributes 134, for which they receive 40 per cent. of £364,000, or £145,600. As in the West Simmer, the working and reserve capital will be ample, and shareholders in the parent company will have the same rights. The property lies 4000 feet from the outcrop, and the reef should be struck at a depth of 2000 feet. In this subdivision the parent company benefits still further by the exchange of a portion of its property for shares in the Rose Deep Company equal to about £180,000.—*Johannesburg Star.*

The Jumpers Gold Mining Company.

Most heartily do we congratulate the shareholders of the Jumpers Gold Mining Company upon the fact that the calculations of their officials of the life of the mine have been falsified by later examinations. Instead of there being only enough ore to last eight years, a recent careful inspection by the managers of this company, and of the New Heriot, rendered practicable by the improved development, shows that the present mill can be kept going for between 12 and 13 years. Not only this, but the quality of the rock grows better with depth, and a long period of increased dividends may confidently be anticipated.—*South African Financial Record.*

Westleigh Gold Mining Company (Limited).

Mr. Bulman was appointed manager of this company. A start has been made in the erection of employees quarters, and I understand mining operations will soon go ahead. The reef of this company is the same as that of the Eastleigh. It is a stupid idea to call it the Westleigh, as the property is really situated to the east of the Eastleigh.—*South African Financial Record.*

Modderfontein.

Every effort is being made to have the new mill ready for work on September 7. All the materials for the cyanide plant are now on the ground, and the construction and erection of the leaching and solution vats will at once be taken in hand. The plant will comprise 14 iron tanks, arranged in a somewhat similar fashion to the Nourse plant, some of the vats being erected on cement foundations, and others for collecting the tailings and for the preliminary treatment being arranged on a higher level and fitted with wooden bottoms. For supplying water to the mill, an enormous iron tank, 50 feet in diameter and 12 feet deep, will be built on a timber scaffolding 23 feet high.—*South African Financial Record.*

Henry Nourse.

The new fine battery of 40 stamps started about a month ago. The old mill of 25 stamps was then shut down and cleaned-up, as also the old cyanide plant. Heavy sorting is resorted to at this mine, which, in part, accounts for the high apparent costs reckoned on the ton milled. The grade of ore milled is high. By the last monthly return the 25 old stamps crushed 2228 tons, with a total yield of 2298 ounces, or over 20 dwts. per ton. If, as now appears most probable, the *bewaarplaats* question be settled in favour of the mines, the mining area will be increased by about 33 claims, and practically doubled. A very powerful mill engine has been sent up to the new battery, with a view of adding 40 additional stamps at any time.—*South African Mining Journal.*

Jubilee.

The stamps in the joint battery are gradually being increased to 50. Forty of these are already running, and the total stamping power is, therefore, just now 55; but, so soon as the full 50 are erected, the old 15 stamp battery will be shut down, and 50 stamps will therefore be the power of the mine. This matter has been discussed previously.—*South African Mining Journal.*

Langlaagte Royal.

The new 60 stamps are in full running order, but, as we stated a fortnight ago, they have not been started on the date proposed, owing to the meeting of a fourth, and very awkward, dyke last month in sinking. The statement made at that time, that the stamps would be hung up, was contradicted, but within the last few days the announcement is again made that during Mr. Hamilton's absence on holiday, which had long been arranged to date from July 1, the mill will be temporarily shut down. This step will allow the development, which of late has been so much retarded by the faulty nature of the western mine, to be pushed so far ahead as to be really adequate to the requirements of so large a milling power as the mine now possesses. The eastern part of the mine has a remarkably good reef; but some anxiety must be felt, and only the well-known efficiency of the management can allay it. The compressor plant has of late had large additions, and when they are completed development should again proceed with the requisite rapidity if the number of faces is sufficient. The overlap caused by the previous dykes has permitted of duplicate drives, and has increased the amount of backs considerably, but meanwhile the loss, however temporary, is a serious one to the milling power and prospective output of the next month or more.—*South African Mining Journal.*

New Comet.

Momentous changes have during the last few months occurred in this part of the Rand. The 40 stamp mill, as previously projected, is now ready for work, and is timed to start on the 10th of this month. But additions are already being made to it; 20 additional stamps are expected to be running in September. The excellent results now being obtained at the Ginsberg will be presently alluded to. This neighbourhood has now an immediate future of great importance. The Comet will be a central mill for the East Rand group, and the present erection of 60 stamps is so arranged that 60 more can be set back to back with them for the St. Angelo. The prospective milling power at this centre, so soon as development warrants it, is a total of 240 stamps. The value of the ore throughout the group ranges from 16 dwts. to 18 dwts. in value.—*South African Mining Journal.*

BUFFELSDOORN GOLD MINING COMPANY.

FOR some months past the building and the erection of new machinery has been proceeding at an abnormal rate (says the *Klerksdorp Record*), and from present appearance it would seem that construction works will never stop, as the arrangements already made provide for fully 12 months' work. The workmen's quarters have been greatly extended; two boarding houses are in full blast; offices for the engineer are being constructed, and a pretty and commodious villa residence for Mr. Blanchford, the engineer, is being erected in the grove of gum trees. A row of 16 detached cottages, built of iron, brick-lined, ceiled and floored, with verandah, and containing three rooms each, is being built, eight of which are almost finished. These are to be let to the workmen at a rental equal to 5 per cent. on the cost; a hospital is also to be erected shortly fitted with all necessary appliances and two nurses engaged to look after the patients. The institution will be supported by the regular subscriptions of the benefit society and voluntary contributions. A reading and recreation room is also to be built for the accommodation of the employees, which will cost something like £1000. From this it will be seen that the employees of the company are not by any means badly treated. In the machinery department the most important is the erection of 70 stamps, each weighing 1050 lb. They are to be placed west of the present battery, and the excavations for the foundations are almost finished. A 10 inch Cornish pump is being laid down in the main shaft 700 feet deep, to be driven by a 25 horse-power engine now being built; both pump and engine will be ready for work in about three weeks' time. New hauling gear to hoist 1500 feet in one minute, with a 9 feet drum, and driven by a 50 horse-power engine, will also be ready in about three weeks. The Gates crusher now in work is doing splendidly, being capable of crushing about 40 tons per hour. Two others of the same capacity are now being erected alongside them in readiness for the new mill. All along the reef from the main to No. 2 west shaft, a distance of 4000 feet, the trucks will be drawn by mechanical haulage driven foom the battery engine, but some three or four months will elapse before this will be completed. When the new battery is completed the present elevator will be replaced by a powerful hydraulic lift. The sorting of the barren rock from the reef is at present partially effected upon the crusher floor, but there is on the ground a Greener sorter, which consists of a broad endless band of steel chains, and plates working on rollers, upon which the ore is fed and conveyed to the crusher, and during the trip the pieces of foot and hanging wall will be picked out by boys standing on a platform at the side. A new workshop is shortly to be erected, 300 by 40 feet, and this will be none too large for the numerous machines now in work and to be put up. A 7 ton steam hammer is kept at work welding the heated metal into shape; lathes, drill sharpeners, pointing and sharpening drills with four blows only, and a mass of other machines are now in full work, but these are to be supplemented by a number of other machines of the latest type, including no less than 12 machines for woodwork, comprising mortising, planing, and other apparatus, also a large smelting foundry. The engine room contains a mass of powerful machinery, including a powerful battery engine, which is to be duplicated for the new battery, air compressors, dynamos, &c. There are at present nearly 500 electric lights on the property, and a new dynamo is being put together to increase the lights to 1000. The cyanide plant is to be doubled, and the excavation for the reception of the tanks and the tramline underneath are already made. The present concentrating boxes are to be replaced by spitzkastens, the concentrates from which will be specially treated. The native compound is well arranged and constructed, being at present a row of rooms 17 by 14 each, about 200 yards long, the outer walls of 18 inch stone, and iron roof. At one end at right angles is a row of about 100 yards in length, and it is intended to build another long row parallel with the other, thus forming three sides of a large yard. Development in the mine is being pushed rapidly forward. The main shaft is down 700 feet, and this and No. 1 west shaft, 2500 feet apart, are both connected at the second and third levels, and drifting both ways from No. 2 shaft west, 1500 feet further, is going ahead. The development is now far ahead of the mill, and is gaining daily. This, it must be remembered, is but one of the many mines for which there is ample room on the enormous area of the Buffels Company, which extends north for many miles and large tracts of country on the same and other lines of reef to the south. The possibilities of the company are simply illimitable, and it needs no prophet to predict for it a career second to none in the State. The success which has attended the operations of this company must be extremely gratifying to Mr. D. J. Pullinger, who, as general manager, has piloted the works through the dismal days of years ago right down to its present near approach to perfection.

CORRESPONDENCE.

We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.

JULIA TALTAL NITRATE COMPANY.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Since the truth about Julias in my communication of July 6 I have not observed any refutation of my statements or criticism on the subject whatsoever, but I do observe another steady fall of 25 per cent. on the value of the stock.

Another drop of 6s., which to all appearances is not far distant, would of course relegate them to the limbo of extinction. It would, therefore, be interesting, as well as of public utility, to ascertain what the directors propose to do—whether they intend to liquidate or reconstruct. It is evident from the circular last issued to the shareholders that the appeal for debenture money spelt failure.

When the City "guinea-pig" sympathises with those deluded mortals who have not the courage to subscribe, the signs are rather ominous. It would, therefore, assist investors materially if those enterprising stockbrokers who engineered the last rise would come to the rescue now, or, at all events, advise how much of the stock—if any—they still have on hand. Even the ever-obliging jobber would rather be chary now of lending his name to a transfer, for fear of an investigation. Perhaps it may be wiser to lay low till the sharp edge has worn off, and time has somewhat allayed the bitter feelings of investors who had faith in Julias under such influential representations. Of course, the proverbial dulness and opening up of new fields can then be made an excuse for the misgivings of the past.

Austin Gold.—That infant prodigy has been frisking about lately. Floated under such favourable auspices, with a strong and merry cheer, it certainly bade fair to eclipse all outsiders. Perhaps when we are treated to a glimmer of the inside working, the directors, having been so exact hitherto, may doubtless see fit to publish a list of the shareholders when floated, also a list of them now. If, as is averred, the news of the utter absence (practically) of gold from a 300 ton crushing came upon the board as a thunderbolt, it beats the Londonderry, for here all the stuff was at grass. It is a very remarkable incident; they should cable the opinion of a manager who had without rhyme or reason cleared out.

It looks very much as if they had been running all over the place for an opinion. Evidently they don't know where they are, though the Melbourne "guinea-pig" knows a thing or two. The shares, I observe, are quoted at ⅛, or 11s. 3d., but the actual value may be put down at ¾d.

Gold Ore Reduction Company.—Ho! ho! some more fortunes in a test-tube! Its modest introduction on this occasion, for the sole benefit of Western Australia and its fitful adventurers, calls for little comment beyond the fact that it appears only as a parasite upon its formidable rival the African Gold Recovery Company, upon whose enterprise and energy the success of the Rand has practically hinged.

Pro bono Publico.

July 27.

GREAT BOULDER PROPRIETARY GOLD MINES, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—The attention of the board of directors of the Great Boulder Proprietary Gold Mines (Limited) has been called to the fact that a company has recently been registered under the name of the "North Boulder Gold Mining Company (Limited)." I beg to inform you that the Great Boulder Proprietary Gold Mines (Limited) are the owners, among other properties, of the mining lease known as the "Great Boulder North," and are now working the mines on that property, and are in no way connected with the North Boulder Gold Mining Company. I am directed to request that you will be good enough to publish this letter in your next issue in order to remove the impression which appears to have gained ground that the Great Boulder Proprietary Gold Mines (Limited) have parted with a portion of their property. This is not the case, and my directors are considering whether steps should be taken to restrain the use by other companies of the name "Great Boulder" or "Boulder." The North Boulder Gold Mining Company appear to have acquired the mining lease of a property situate some distance to the east of the Great Boulder group, hitherto known as the "Eureka."—I am, Sir, your obedient servant, B. Depledge, Secretary.

3, *Gracechurch Street, London, E.C., July 27.*

GOLD MINING, ETC., IN SOUTH DAKOTA.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—Mr. Rickard's characteristic snarl in your issue of April 27 has reached me here. It needs but little reply. The terms used by me are, at any rate, accurately descriptive, whilst my critic's are not. I am without the advantage possessed by Mr. Rickard of knowing the Almighty's intention with regard to geological nomenclature, and it is doubtless terrible presumption on my part to query the omniscience of one who proclaims himself not only a "F.G.S.," an "A.R.S.M.," and an "&c.," but also the "Geologist for the State of Colorado." I only crave, with all the humility the occasion demands, permission to submit that "silicious" and "quartzose" are distinctly *not* synonymous terms to men of ordinary mind. As for the peerless English (whatever that may mean) which Mr. Rickard invokes, the most casual reading of his letter will suffice to show his own marked preference for those Græco-Roman six-syllabled words which he would deny to lesser mortals. It is refreshing to think what a most promising field is open for the exercise of Mr. Rickard's peculiar linguistic talents among the "vulgar crowd" of his chosen land.—Your truly, C. G. Warnford Lock.

Lucknow, N.S.W., June 12.

Port Phillip Company.—Tribute parties working in this company's ground have had payable crushing equalling, in some instances 12 dwts. per ton. Several other parties working on South Clunes ground at shallow levels to 100 feet are also getting good returns from 13 dwts. to 1 ounce 6 dwts. per ton. As the Port Phillip will restart soon, a number of men will find profitable employment in tributing the larger area of unworked ground at the shallow level of that mine.

The Permanent Nitrate Committee.—Public Statistical Circular, August, 1895.—Nitrate of Soda. 1. Total exports to Europe, July, 1,342,000 quintals; loading for Europe, August 1, 1,900,000 quintals. 2. Imports, Europe, July, 40,460 tons. 3. Deliveries in Europe, July, 50,200 tons. 4. Visible supply, Europe, August 1, stocks and afloat 317,640 tons.

METAL TRADE STATISTICS.

JULY, 1895.

COPPER.

(From Messrs. Henry R. Merton and Co.'s Circular for July, 1895).

	July 31, 1895.	July 15, 1895.	June 30, 1895.	31ST JULY. 1894.	1893.	1892.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
STOCKS IN ENGLAND AND FRANCE:—						
Liverpool and Swansea, Chili Bars	40,154	39,808	39,782	33,746	30,304	32,261
,, ,, Chili Ingots	691	661	667	930	94	663
,, ,, Chili Ores and Regulus (fine) ...	2	17	2	197	76	417
,, ,, Other Stuff (fine) & English Copper	7,762	6,780	7,829	6,677	4,781	10,585
London (including landing)	3,557	3,785	4,172	5,690	5,780	7,945
Stocks of fine Copper in Havre, Rouen, Bordeaux and Dunkirk	1,581	1,660	1,230	1,335	4,848	5,167
	53,717	52,711	53,682	47,975	45,883	55,138
ADVISED FROM CHILI by Mail and Cable, Fine Copper ...	3,100	3,150	3,500	2,400	3,800	3,800
,, ,, Australia, by Mail and Cable, Fine Copper	1,000	1,050	1,000	900	800	800
	57,817	56,911	58,182	51,375	50,483	59,738
Price of Chili Bars and G.M.B.'s per ton	£45 7 6	£44 0 0	£42 7 6	£38 2 6	£41 12 6	£44 17 6

COMPARATIVE STATEMENT.

—	Stock in England and France and Afloat thereto from Chili and Australia.	Price of G.M.B.	Arrivals: England and France.	Arrivals: Other European Ports.	Arrivals: England & France from Spain and Portugal (excluding Pyrites).	Arrivals: England & France from Other Countries.	Charters from Chili to Europe.	Shipments from Australia to London.	Total Suppl's.	Total Deliveries. *
Month ending	Tons.		From N. America. Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
31st July 1895	57,817	£45 7 6	2,469	5,331	1,387	2,504	1,700	500	13,881	14,246
30th June ..... ,,	56,182	42 7 6	2,128	3,945	1,775	6,874	2,100	600	17,422	13,451
31st May ..... ,,	54,211	43 0 0	2,015	2,329	442	703	2,300	500	8,289	8,617
30th April..... ,,	54,239	40 17 6	1,608	1,930	2,318	1,611	2,700	700	10,867	9,963
31st March ..... ,,	53,335	38 5 0	1,636	1,599	1,151	2,991	1,200	850	9,477	11,332
28th February ... ,,	55,490	39 0 0	2,430	1,920	1,542	1,519	1,550	600	9,611	9,269
31st January ... ,,	54,848	40 5 0	4,626	1,229	773	2,424	1,650	750	11,452	11,268
31st December ...1894	54,664	41 0 0	3,839	1,048	1,436	2,366	2,300	600	11,839	9,470
30th November... ,,	52,295	39 15 0	2,103	1,895	1,535	1,235	1,250	510	8,518	9,011
31st October ..... ,,	52,788	40 15 0	2,869	3,779	1,334	1,088	1,850	600	11,520	10,766
30th September ,,	52,034	41 10 0	1,803	3,650	909	1,573	1,100	450	9,885	10,241
31st August ..... ,,	52,407	40 7 6	3,026	4,641	1,494	3,973	2,000	550	15,684	14,602
			30,495	33,276	16,298	28,861	22,150	7,650	138,728	132,236
31st July 1894	51,325	38 2 6	3,455	2,365	1,209	1,816	1,800	550	11,195	9,942
30th June ..... ,,	50,072	38 5 0	2,726	2,945	858	3,522	2,300	650	13,001	10,109
31st May ..... ,,	47,560	38 17 6	2,778	2,759	1,976	3,023	1,850	550	12,936	12,162
30th April..... ,,	46,806	39 17 6	3,559	2,811	1,057	2,977	1,650	600	12,654	12,445
31st March ..... ,,	46,897	40 15 0	2,546	3,096	1,184	1,699	1,500	550	10,575	11,342
28th February ... ,,	47,364	41 0 0	3,198	3,276	647	764	1,950	550	10,385	10,173
31st January ... ,,	47,152	41 5 0	4,921	2,809	1,477	890	1,350	500	11,947	12,090
31st December...1893	47,295	42 15 0	3,848	4,852	1,687	852	2,700	500	14,839	13,371
30th November ,,	46,827	43 0 0	6,146	4,388	1,332	6,644	1,400	450	19,400	20,613
31st October... ... ,,	48,040	42 2 6	7,097	6,275	999	3,082	2,200	1000	20,653	20,517
30th September ,,	47,964	41 17 6	7,940	3,971	1,256	621	1,700	600	16,087	16,144
31st August ..... ,,	47,961	41 12 6	4,272	2,288	1,535	845	1,200	400	10,940	13,462
			52,486	41,535	15,216	25,575	21,900	6,900	163,612	162,770
31st July 1893	50,483	41 12 6	4,236	2,412	614	2,607	2,400	400	12,669	12,141
30th June ..... ,,	49,955	43 10 0	1,914	2,310	1,958	2,548	1,850	550	11,130	11,126
31st May ..... ,,	49,951	42 2 6	3,179	987	1,291	1,271	1,750	450	8,928	11,071
30th April ..... ,,	52,194	44 10 0	2,521	905	799	1,084	1,600	550	7,459	10,636
31st March ..... ,,	55,271	45 5 0	1,312	887	1,577	3,291	850	600	8,417	10,566
28th February ... ,,	57,420	45 12 6	1,821	632	1,170	2,785	3,000	450	19,858	10,945
31st January..... ,,	58,507	45 2 6	3,268	455	1,453	4,899	1,000	700	11,773	9,011
31st December...1892	55,745	46 17 6	3,235	542	2,555	3,006	2,800	300	2,238	9,991
30th November ,,	53,498	47 17 6	2,632	623	690	1,725	1,500	700	8,060	10,840
31st October ..... ,,	56,078	45 12 6	752	850	752	2,922	1,650	500	7,436	9,840
30th September ,,	56,482	44 2 6	1,048	535	1,619	2,315	1,750	400	7,667	8,903
31st August ..... ,,	59,718	44 7 6	2,887	324	985	2,583	1,900	400	9,059	9,079
			28,993	11,262	15,783	31,036	21,650	6,000	114,694	123,949

* Including Chilian and North American for all Europe.

TIN.

(From Messrs. A. Strauss and Co.'s Circular for July, 1895).

	30th June 1895.	31st July 1895.	31st July 1894.	31st July, 1893.
	Tons	Tons.	Tons.	Tons.
Straits and Australian spot	10,157	10,211	7,409	732
Ditto ditto landing	1,427	695	758	1,290
Straits, afloat	2,025	3,215	3,245	1,685
Australian, afloat	472	500	786	552
	15,081	14,881	12,200	4,259
Banca, on Warrants..	1,308	1,886	1,280	803
Billiton, spot	1,725	1,839	1,823	315
Ditto afloat.....	1,193	770	790	1,210
Straits, spot in Holland	1,000	1,054	545	130
Ditto afloat to Continent	1,025	1,175	680	1,428
	21,370	21,605	17,518	8, 65
Total afloat for United States	1,760	1,975	1,715	—
Estimated stock in America.....	3,590	5,235	956	8,210
Total	28,630	28,815	19,989	16,375
Prices of Straits and Australian.....	£82 15 0	£85 7 6	£65 17 6	£83 0 0
Deliveries during the month in London.....	1,402	1,202	1,025	2,046
Ditto ditto Holland.....	659	800	703	373
	2,061	2,002	1,728	2,419

Shipments during the month from Straits to London ... ... 2,800 Tons
,, ,, ,, Australia to London ... ... 225 ,,
,, ,, ,, London, Havre, and Holland to America ... 2,800 ,,
,, ,, ,, Straits to America ... ... 800 ,,
,, ,, ,, Australia to America ... ... 50 ,,
,, ,, ,, Straits to Continent ... ... 800 ,,

—	During 12 months ending July 31, 1895.	During 12 months ending July 31, 1894.	During 12 months ending July 31, 1893.	During 12 months ending July 31, 1892.	During 12 months ending July 31, 1891.
Shipments from Straits to London	28,612	27,067	23,255	18,372	15,058
Shipments from Straits to America	5,175	5,335	7,385	6,875	11,217
Shipments from Straits to Continent	12,982	12,471	6,875	4,980	4,280
Ditto from Straits to Europe and America ...	46,769	44,873	37,515	32,227	30,545
Shipments from Australia to London	3,662	4,885	4,172	4,494	4,907
Shipments from Australia to America... ...	1,100	600	450	900	950
Deliveries of Tin in London	16,977	19,544	15,924	15,506	17,486
Deliveries of Tin in London and Holland ...	25,931	26,597	24,084	23,682	25,469
Ditto in London, Holland, France, and U.S....	56,009	54,643	49,812	45,523	45,554

Banca in Trading Company's hands and afloat, 5166 tons.

PRICES: Straits and Australian, spot ... ... £85 0 three months ... £85 15 0
English Common ingots ... ... 68 10 0 refined 70 10 0
Banca ... ... 85 15 0 Billiton 85 5 0

MINING IN COLORADO.

(FROM OUR OWN CORRESPONDENT.)

TO an Englishman resident in Colorado for nearly a dozen years, and, while unconnected with mining, yet fully cognisant of the immense mineral resources and legitimate possibilities of the State, it is amazing to read in the English papers of the recent extraordinary exploits of the professional company promoters in London, taking the fullest advantage of the present mania for gold mining enterprises, reputable or otherwise, in South America and Western Australia. The epidemic, presumably, will run its course, and after large sums of money have been lost by a gullible public, attention will again be paid to less glittering but more conservative and reliable enterprises.

A new phase of mining in Colorado is now claiming and will continue to receive increased attention from practical people with money to invest. The conditions of mining in Colorado have very materially changed during recent years, more especially since the closing of the Indian Mints, the unconditional repeal of the Sherman Act, the appreciation of gold, the relative depreciation of silver, and the fall in prices of all commodities, giving an ounce of silver practically the same purchasing power it formerly possessed.

It was the gold placers that first attracted the pioneers to Colorado in 1859, and the discovery almost immediately afterwards of gold in fissure veins attracted a still larger wave of immigration. The discovery in more recent years of immense deposits of silver at Leadville, Aspen, and elsewhere, attracted the gold miners from Gilpin, Clear Creek, and other counties, where in many cases the richer gold ore had been exhausted, and the then cost of all mining necessaries precluded the further working at a profit of many more or less developed mines. In this way properties of latent merit were practically abandoned by the owners, who rushed to the more attractive silver mining districts. Since then the wonderful gold discoveries of Cripple Creek, Leadville, and elsewhere have brought gold to the front, and furnished employment for many men.

The fact remains, however, that in Colorado there are scores of low grade gold properties abandoned years ago as absolutely unprofitable when high prices prevailed, which can now be worked at a good profit.

A brief explanation will clearly demonstrate why this is so. In the interim, Colorado has rapidly developed as an agricultural, horticultural, and manufacturing State, and the cost of food has much decreased, especially since the universal fall in values within the last few years. With the reduced cost of living, wages have also fallen from the former range of from 14s. up to £1 per day down to from 8s. to 10s. per day. Mining supplies such as machinery, tools, explosives, timbers, &c., have experienced similar reduction. The railroads have reduced freights, as, for instance, the freight on ore from Gilpin county to the Denver smelters is 8s. per ton where formerly it was 24s. and 28s. per ton. The smelters also have come down in their charges from 36s. to 48s. per ton, against £6 to £8 formerly. Chlorination, cyanide, and other processes are also now in successful operation for the economical and effective treatment of ores, which formerly could not be handled to pay expenses. Add to this the increased skill of every class of men engaged in the transition from crude ore in the bowels of the earth to refined bullion at the U.S. Mint, which is another important factor, it will readily be seen from the foregoing how changed for the better the local mining conditions are, and, as an illustration, it may be mentioned, that while formerly, ore running from 24s. to 32s. per ton in Clear Creek county was simply left on the dump as practically valueless, or not taken out at all, by reason of the above changes, and the concentration system now in vogue, one mine in Clear Creek county has produced, at a good profit, £60,000 in the last three years from low grade ore, ranging in value from 24s. to 32s. per ton.

The result is that shrewd, practical, conservative, mining men are quietly investigating and acquiring control of such abandoned or dormant mining properties, or only partially-developed properties, of which there are many to select from. They frequently belong to men of limited means, unable financially to take the necessary steps, even if they know just what to do. They are only too willing, as a rule, to give a bond and lease on the property to any responsible person having the necessary enterprise and capital. In some cases a small payment down is asked, and a royalty charged on all ore taken out, such royalty applying on the purchase-money if a sale is ultimately consummated. In the majority of cases, however, no payment down is required, but it is usually stipulated that a certain amount of development work shall be done within a specified time. The result is that at the present time a person can have for consideration quite a number of mining properties, the past history of each of which can readily be ascertained and checked. Say, one of them is selected after a thorough examination and favourable report by an expert, the terms being either no present cash payment or a mere nominal payment (say) of £100 or 200, with a lease and bond giving the proposed purchaser the privilege of opening up, further developing and working the mine (say) for two years, at the end of which period, or at any time prior thereto, at his option, he can pay the purchase-money (say) of £5000. In the interim, a couple of hundred pounds judiciously spent in the employment of labour, pumping, &c., may have developed the fact that the mine is worth £20,000, or £50,000, in which case the stipulated £5000 purchase money is at once paid and full title acquired. On the other hand, the expenditure of the same comparatively small amount may have demonstrated the fact that it is not a valuable property, in which case he incurs no further expense, relinquishes his bond and lease, which terminates the transaction and all further liability in relation thereto.

The advantage of the system is that it gives an impecunious owner an opportunity of disposing of his property, and also gives a proposed purchaser every opportunity to ascertain the merits of the property at a comparatively small expense, before deciding whether he will purchase or not. Is it not self-evident that sums of not to exceed from £500 to £1000 judiciously invested in exploiting on the above terms would inevitably result in a fair proportion of very remunerative properties being acquired?

Encouraged by the success that has attended a number of individuals and small private syndicates operating on the above lines, several exploration and development companies have been formed, notably one composed of prominent Denver manufacturers and business men, who are furnishing the capital themselves. For those who prefer a conservative and legitimate investment rather than "a straight gamble," or "taking a flyer," the above phase of mining will doubtless commend itself, and lead to a more full investigation by them. It would pay English capitalists predisposed to mining investments to visit Colorado personally, as only by such a visit can they fully realise the opportunities for legitimate investment which exist here. Practically every mining district in the State can be reached from Denver in a comparatively short time and in a Pullman car, if desired; and every mining district is furnished with good hotels with reasonable tariffs. As compared with South Africa or Western Australia, Colorado is not only very accessible but presents many attractions as a district in which to spend a short holiday and unite pleasure with profit.

PIG IRON.—Messrs. William Connal and Co.'s monthly circular says:—Opening at 43s. 11½d., the lowest price for the month, the market showed considerable strength, advancing to 45s. 6½d., which was the highest, and closing fairly steady at 45s. 3½d. cash sellers. Middlesbrough warrants have also been stronger, business having been done at from 35s. 10d. to 36s. 5d., closing at 36s. 4d. cash sellers. The stock of pig iron in the yards of Connal and Co. (Limited) shows a decrease of 95 tons, and now amounts to 282,087 tons, with warrants in circulation for 277,850 tons. The stock of Cleveland pig-iron in the yards of Connal and Co. (Limited) shows an increase of 6316 tons, and now amounts to 129,514 tons, with warrants in circulation for 107,900 tons. The stock of hematite (Middlesbrough) in their yards at Middlesbrough amounts to 100,242 tons, with warrants in circulation for 91,200 tons.

— THE NUNDYDROOG COMPANY (LIMITED) has sold the gold obtained during the month of June, which realised £11,846 19s.

REPORTS FROM THE MINES

We find it necessary to announce that, owing to the vast numbers of mines, reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.

BRITISH MINES.

GREAT LAXEY.—F. Reddicliffe, July 17: The exceedingly dry weather so long continued is altogether unprecedented at Great Laxey, and, as a consequence, not only is the water not yet in fork at the bottom of Welsh shaft but some 18 fathoms in depth has accumulated. The little rain occasionally during last week has done but very little as yet in raising the streams, and the big wheel is not turning fast enough to keep out the coming water. We have not thought it desirable to put on steam power for the purpose of air-compressing but to await the next rain. We are still unable to speak of any improvement or change of consequence throughout the mine.

WHEAL FRIENDLY (St. Agnes).—July 27: The men have completed their contract for enlarging the adit, cutting pole ground, cutting cistern plot, and cutting down the shaft 16 feet. On Monday we shall commence to cut ground for the bearers, and after fixing same shall resume cutting down the shaft; this work must be completed before we can do anything below. It will take about two months from this time to complete the work down to the 10 fathom level.—(Signed) Charles Cole.

LEADHILLS.—W. H. Paull, July 30.—Brown's vein. The 160 fathom level now extended 59 fathoms 5 feet north of Jeffrey's shaft is set to five men at 92s. 6d. per fathom. Vein here 4 feet wide, composed chiefly of quartz and stone, strongly spotted with lead ore, and producing saving work. The same level now driven 52 fathoms 2 feet 6 inches south of Wilson's shaft is set to two men at 75s. per fathom, vein 4 feet wide rather soft and poor. A winze which is down 6½ fathoms below the 145 fathom level north of Jeffrey's shaft is set to five men at 100s. per fathom, vein 4 feet wide, composed of a strong spar and stone, but without ore at present. No. 3 stope over the 145 fathom level north of Jeffrey's shaft set to four men at 32s. 6d. per fathom is worth 25 cwts. of ore per fathom. No. 4 stope over same level north of ditto set to four men at 35s. per fathom yields 20 cwts. of ore per fathom. No. 1 stope above the 115 fathom level north of Jeffrey's shaft set to three men at 40s. per fathom will produce 25 cwts. of ore per fathom. No. 2 stope over same level north set to four men at 35s. per fathom is yielding 30 cwts. of ore per fathom. The 100 fathom level is extended 221 fathoms 5 feet 6 inches south of Wilson's shaft, and set to five men at 62s. 6d. per fathom. The vein at this point is 3½ feet wide composed of a dark, softish stone, intermixed with spar and mundic. A rise over the 100 fathom level south of Wilson's shaft is set to four men at 95s. per fathom; vein contains a strong mixture of spar, but no ore at present. No. 2 winze now down 2 feet 5 inches below the 85 fathom level south of Wilson's shaft is set to four men at 85s. per fathom; vein here 4 feet wide, unproductive. A stope over this level south of Wilson's shaft set to four men at 32s. 6d. per fathom will produce 60 cwts. of ore per fathom. A stope over same level south of ditto set to two men at 40s. per fathom is worth 35 cwts. of ore per fathom. A stope above the 70 fathom level south of Wilson's shaft is set to four men at 32s. 6d. per fathom on vein 9 feet wide, producing 60 cwts. of ore per fathom. A stope above the 50 fathom level south of flat rod shaft, set to four men at 22s. 6d. per fathom, yields 25 cwts. of ore per fathom. A stope below the 35 fathom level south of flat rod shaft, set to four men at 32s. 6d. per fathom, is at present worth 10 cwts. of ore per fathom, but is expected to improve as worked on.—Raik and Highwork veins. The crosscut east at the 100 fathom level south of Wilson's shaft is now extended 71 fathoms, and reset to seven men at 130s. per fathom, also to drive north on Raik vein at 80s. per fathom. The vein at this point 68 fathoms east of Brown's vein will produce 50 to 60 cwts. of lead ore per fathom. In forebreast of crosscut the ground is more compact, and contains less stringe of spar, &c., but of a kindly character and congenial for the production of mineral.—Sarrowcole vein. Gripp's adit level is set to drive south by three men at 90s. per fathom, now extended 102 fathoms 5 feet 6 inches south of George's Roast vein. In this forebreast the vein is 3 feet wide, showing a strong mixture of calcarous spar and barytes, but no lead ore to value. Unless an improvement takes place here shortly I purpose putting up a rise over this level to prove the vein higher up. We have had some heavy rains recently, which have increased our water supply, and all things are being pushed ahead vigorously.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended June 20, as follows:—Block 96, 280 level east. Prospecting drive No. 4 rise driven 12 feet, total 150 feet. This drive having evidently reached the eastern extremity of the ore shoot and getting into schist, work has been suspended here, and a rise is being put up at a distance of 36 feet back from the face of drive, to prospect the ore shoot upwards.—East drive south-west. Stopes driven 25 feet, stoping continued. The find struck, as reported in last report-sheet, was only confined to a small run of ground, but yielded some native silver, sulphide of silver, fahlerg and galena. 280 level west driven 18 feet, total 205 feet 6 inches. The lode here is small, and country rather hard. Incline No. 6 level east, driven 10 feet, total 28 feet. The lode has widened and carries two veins of carbonate of iron and calcite containing a little galena. No. 5 level east No. 1 rise driven 10 feet, total 10 feet. This rise is being put up about 12 feet from the face of drive, the ode is small, consisting of carbonate of iron and calcite.—No. 4 level east. Work has been suspended for the present, and the men have been transferred to the eastern workings.—280 level east. Diamond drill driven 64 feet, total 64 feet. The drill is now working well.—Note. The quantity of rock mined during this fortnight was 2700 cat feet.

BREMNAES.—Lokling, Haugesund, July 26. We have considerably increased our mining staff, and hope by the end of the month to have the rock-drills at work. The different points specified below show but little alteration from the last two reports. We have collected a few tons of quartz from the different workings which we intend to crush next week. This crushing is in advance of our intentions, but we do it first to get a mill test of the quartz being raised also to verify our statements as to the general improvement in the mines. These small crushings we shall continue monthly until our mining staff is sufficiently large and our ground sufficiently opened to permit of the mill being kept in regular and constant work. Section 4, 400 feet level, lode has improved, quartz 18 inches assaying 5 dwts. 300 feet level north, winze sinking to 400 feet level. Lode disturbed and quartz small, caused by a heavy depression, whereby the two walls are only a few inches apart. Rise and stope in back, quartz varies from 8 to 10 inches, assaying 4½ dwts. Level south, quartz 8 inches, assaying ½ ounce of gold to the ton:—200 feet level south. Lode somewhat mixed, the quartz being in strings and bunches, assay value when sorted 7 dwts. As this is a very important point we are fixing a drill to push it ahead faster. Stope in back of this level north shows 12 inches of quartz, assaying 8 dwts. This stope has greatly improved.—80 feet level south. Quartz 10 inches, assaying 4 dwts. Rise in ditto, quartz 7 inches, assaying 4½ dwts. Stope going north, quartz 14 inches, assaying 3½ dwts. All other points show no alteration to note.—Section 5. Stope in back of level, quartz 8 inches, assaying ½ ounce to the ton. We have sorted from 8 to 10 tons of quartz from this stope to test at the mill, and if the mill result confirms the assays it will prove that we have a very valuable property also here.—John Daw, jun.

BAYLEY'S REWARD NO. 1 SOUTH.—Mining report, Coolgardie, dated June 10: Main shaft, 120 feet level. During the week the north drive has been advanced 9 feet, total being 19 feet from shaft. Lode is 2 feet wide of solid stone exposing a little gold.—South stope. The 120 feet level continues to yield stone of payable character, the reef at this point being large, making one of those bulges short, but frequently been in the lode.—90 feet level, North drive at the 90 feet level has been driven 13 feet, total 129. At present no quartz in the face, there being nothing to follow beyond what is apparently the wall. This will be continued some distance further, and, should it not make again lode material, a crosscut will be driven east from the end of the drive to ascertain if the lode is faulted in that direction.—North stopes. The north stopes above this level continue to show gold, but the reef is small, ranging from 12 to 18 inches wide.—South stopes. Stopes above the south drive are returning a fair quantity of stone. Lode 2 feet wide, but apparently at present of low value. The stone is being passed through the battery and may improve at any time.—Tram road. Tram road from the main shaft to the battery is progressing fairly well, and should be completed within the next fortnight.—Cage road. Cage road in the main shaft will be started to-day and completed during the coming week.—Machinery. Machinery working well full time.—(Signed) W. H. Matthews, manager.

CRESCENT GOLD.—Superintendent's report, dated June 24: Crescent Mine. No work has been done in the shallow tunnel on the south shoot since the last crushing of 11 tons, which yielded 26 ounces 18 dwts. of gold, was taken from the footwall side of the drive south of tunnel, the payable portion of lode here averaging 9 feet in width. It is intended, however, to continue the south drive to a point under a surface cutting 80 feet south, from which stone of good quality has been obtained. The shallow tunnel towards the north shoot is in 44 feet, and has reached the hanging-wall of the lode, which is here 18 feet wide, and somewhat auriferous over a width of about 9 feet. As this tunnel is 134 feet south of the north shoot, it was not expected that payable stone would be intersected by it. It is, therefore, encouraging that even colours of gold should have been met with. We have to-day commenced to drive north on the course of the auriferous portion of the lode, and should soon reach the north shaft at a depth of 80 feet below the surface. New tunnel has been commenced from a point near the river, and is now in 24 feet, the rock not having yet been reached. The subsoil shows colours of gold in the dish, and it is very probable that the tunnel, which is being driven towards the south shoot, will intersect other auriferous lodes which, on account of the depth of soil, do not appear at the surface. This tunnel will reach a point under the south cutting, already referred to, at a vertical depth of 200 feet, or 112 feet below the workings in the shallow tunnel, and should intersect the main lode at a distance of about 375 feet. The driving of the tunnel will be done on contract.—Barracks. There being no accommodation for the men at or near the mine a substantial log hut is being built for their convenience during the winter, which may subsequently be utilised as a store room.—Orlando Mine. At the Orlando Mine a tunnel has been started near the river with a view to intersecting the various lodes existing on the lease. This tunnel is in 9 feet, the rock being hard, and will reach the western lode at a distance of about 550 feet, and the eastern lode at 250 feet, at respective vertical depths of 350 feet and 120 feet. It will also be driven on contract.

DE LAMAR.—Copy of Captain J. W. Plummer's monthly report for June: Mining. Ore breaking department. Hamilton vein, above 3rd level. Average width of vein 3 feet, assaying $23·62 in gold and $1·24 in silver, equal $24·86 per ton.—77 feet vein, above 4th level, intermediate stope. Average width of vein 4 feet, assaying $16·68 in gold and $4·94 in silver, equal $21·62 per ton.—77 feet vein, 4th level, west stope. The vein assays $28·60 in gold and $1·84 in silver, equal $30·44 per ton.—77 feet vein, 5th level. Average width of vein 2 feet, assaying $18·68 in gold and $1 in silver, equal $19·68 per ton.—77 feet vein, 6th level. Average width of vein 4 feet 6 inches, assaying $18·50 in gold and $0·65 in silver, equal $19·15 per ton.—77 feet vein, 7th level. Average width of vein 6 feet, assaying $13·05 in gold and $9·42 in silver, equal $22·47 per ton.—77 feet vein, 8th level. Average width of vein 4 feet 6 inches, assaying $19·38 in gold and $3·20 in silver, equal $22·58 per ton.—77 feet vein, 9th level, east stope. Average width of vein 4 feet 6 inches, assaying $20 in gold and $13·20 in silver, equal $33 20 per ton.—No. 5 vein, 6th level. Average width in vein 3 feet, assaying $28 in gold and $0 88 in silver, equal $28·88 per ton.—No. 6 vein 8th level Average width in vein 3 feet, assaying $24·48 in gold and $1 in silver, equal $25·48 per ton.—No. 6 vein, 10th level. Average width of vein 2 feet, assaying $22·48 in gold and $0·64 in silver, equal $23·12 per ton.—No. 7 vein, 7th level. Average width of vein 3 feet 6 inches, assaying $25·60 in gold and $1·10 in silver, equal $26·70 per ton.—No. 7 vein, 8th level. Average with of vein 3 feet, assaying $17·96 in gold and $1·04 in silver, equal $19 per ton.—No. 9 vein, 7th level, Average width of vein 4 feet, assaying $23·25 in gold and $8·50 in silver, equal $·75 31 per ton.—No. 9 vein, 8th level. Average width of vein 2 feet 6 inches, assaying $34·68 gold and $1·88 in silver, equal $36·56 per ton.—No. 9 vein, 9th level. Average width of vein 3 feet, assaying $25·48 in gold and $5·35 in silver, equal $30·83 per ton.—Prospecting department. Wilson's vein, 5th level, raise above level. The total height of this raise is 27 feet. It was completed the latter part of the month. The vein averaged 2 feet in width, assaying $26 in gold and $1 in silver, equal $27 per ton.—77 feet vein, 4th level, intermediate. Reported length 41 feet, advanced for the month 45 feet 6 inches. Total length 86 feet 6 inches. During the month the vein became small and split up, and work was suspended for the time being.—77 feet vein, 4th level west. Reported length 150 feet 6 inches, advanced for the month 35 feet 6 inches. Total length 186 feet. The vein has averaged 12 feet 9 inches in width, assaying $27·95 in gold and $1 in silver, equal $28·95 per ton.—77 feet vein, 9th level, on footwall branch. Reported length 102 feet 6 inches, advanced for the month 51 feet 6 inches, total length 154 feet. The vein has averaged 2 feet 3 inches in width, assaying $16·50 in gold and $5·65 in silver, equals $22·15 per ton.—77 feet vein, 10th level, east. Reported length 598 feet 6 inches, advanced for the month 36 feet 9 inches, total length 635 feet 3 inches. There is nothing of any importance to report. The vein has been of low grade during the whole month.—No. 5 vein, 5th level, west.—This has been advanced 27 feet 6 inches for the month. The vein has averaged 6 feet in width, and assays $18·95 in gold and $1·50 in silver, equals $22·45 per ton.—No. 5 vein, 5th level west, raise to 4th level. This raise was completed during the month. The total height is 53 feet. The vein averaged 3 feet 6 inches in width, assaying $21·50 in gold and $1 in silver, equals $22·50 per ton.—Reef crosscut to the Stoddard claim, 4th level. This has been advanced 17 feet during the month. The total length is 187 feet 6 inches.—Summercamp group. Reported length main tunnel 313 feet, advanced for the month 20 feet, total length 333 feet. There is no change to report in this part of the mine.—Milling department. The mill has been running with its accustomed regularity. We shut down as usual on the 1st of this month for clean up and repairs.—Table of work performed for month of June. Number of wet tons crushed 3869·87; number of dry tons crushed 3482·89; assay value of the pulp $27·72; gold $20·62, silver $7·10; assay value of the tailings $5·38; gold, $4·24, silver $1·14; percentage saved, total 80·59 per cent.; number of Doré bars produced 22; number of ounces pure gold produced 2079·707; number of ounces fine silver produced $38,189·05; value of gold produced $41,594·15; value of silver produced $22,913·41—$64,507·56; ore shipped during the month $13,200; miscellaneous revenue $1009·35; —$78,716·91; deduct all expenses for the month $39,151·18; estimated profit for month (or at $4·90 to £ sterling £8074) $39,565·73. —Outside department. The water supply in Jordan creek fell off to such an extent that we were compelled to use the engine as auxiliary to the wheel. Everything about the premises is in good order.

DON PEDRO.—Mine manager's monthly report, Maquiné, July 1: The June tonnage includes the cleaning up of the shaft from the 60 horizon down to the bottom of the shaft. The mineral sent to surface from this is of very low grade, although showing a little gold. Shaft cleaning was completed on the 27th, and sinking resumed.—Stoping operations. These have been carried on very extensively west of the 50 on the branch and underlie lode. The Canoa shoot is a very large formation standing from north to south 38 feet. This embraces the whole shoot, and is carried by four stopes, No. 1 stope being the south. Very little, however, has been done in this stope during the month, 3 feet of the lode having been excavated, which was of poor quality.—No. 2 stope. This carried the line of gold, but is now communicated with old workings west. This stope has also been continued east of the 50 north drivage, and has reached within 3 fathoms of the 60 horizon.—Underlie lode. From the 50 horizon a rise was driven and intersected the lode, which was found to be very much crushed; therefore, we suspended this and started another rise west of the 50 fathom from the back of No. 3 stope. This has been carried on south of the lode. The lode is small but of fair quality. Risen for the month 9 feet. We intend to follow the lode to its southern point, then turn west and extract all mineral standing in that direction.—Winze. This has been started from the 50 east. We intend to carry this down to the 60 on the course of the lode, and when completed will lay open that section of the mine.—Mine drainage. The clearing of the accumulated stuff in the shaft from the 60 to the bottom was completed on 27th ulto. and sinking resumed. Shaft and adit repairs have been attended to with a small force and other resuming work kept on as usual.—Morro de Santa Anna. The drivage of No. 1 end has been carried on in a large lode of the same quality as formerly reported. Driven for month 9 feet.

GOLDEN DOVE.—Extracts from manager's report dated June 27: I am glad to say that the shoot No. 1 reported on in my last looks exceedingly well; we got up the first out of it yesterday, and it shows good visible. I did not crush the cobbles from No. 1, as you may take it for granted they are very rich. We are about 200 feet beyond Mickley's in the drive which must make us close upon Scott's; in fact, there is a lot of water coming in now which looks as if we were close to the reef. Three Johannesberg agents have just visited Household's and our formation. I hear they are greatly impressed; they have pegged off the Champion Block. This is a large low-grade body, and runs through our ground in new block; we have not touched it. I think we shall have developments here before long. The road from Greytown to Ingobevu is being vastly improved, and will be finished by August.

KINSELLA.—With reference to the trial crushing in May of 100 tons of ore, which yielded 125 ounces of gold on the plates, the mine manager, Mr. T. Hewitson, writes:—Trial crushing received my close attention both at the mine and the mill while crushing was proceeding. From careful enquiry and comparison since, I am of opinion the trial crushing represents a fair average value of ore for a length of about 700 feet on the course of the lode by a depth to water level (say) 43 feet. I have not had any means to test the value of ore at north part of lease.

MOUNT ZEEHAN (Tasmania).—The manager reports for week ended June 18: Silver Queen section, No. 8 lode, main shaft. Sunk 5 feet, total below No. 1 level 30 feet. This is better progress than the last, and the ground is now good for sinking.—No. 1 level north. Tributers having been engaged timbering, there is no change to report. 10 cwts. of sulphide ore raised by tributers from the east tribute on Queen extended section, assayed 923 ounces of silver per ton.

MEYER AND CHARLTON.—Report for the month of June: Mine. Number of feet driven, sunk, and risen, 440; quartz mined, 4105 tons.—Mill. Number of days (24 hours) working 50 stamps, 28½; ore crushed, 2998 tons; yield in smelted gold, 2428 ounces 13 dwts. 19·20 grains; yield per ton, 16 dwts. 4·849 grains.—Cyanide works. Tailings treated, 2582 tons; yield in bullion 694 ounces 15 dwts. 22·56 grains; yield per ton treated, 5 dwts. 9·164 grains; working cost per ton treated, 5s. 8·736d.—Expenditure and revenue. Working expenditure. To mining (including maintenance), £2310 7s. 2d.; to transport, £78 7s. 10d.; to milling (including maintenance), £733 11s. 3d.; to cyanide works (including maintenance), £766 2s. 7d.; to general charges, £977; to mine development redemption account, £449 14s.; profit for month, £5819 15s. 9d.; total, £11,134 18s. 7d.—Revenue. By gold accounts—2428·690 ounces from 50 stamp mill, at 73s. 6d. per ounce, £8925 8s. 9d.; 694·797 ounces from cyanide works at 60s. per ounce, £2084 7s. 10d. By slimes account—Sale of 1457 tons, £72 17s.; by house and stand rents, £52 5s.; total, £11,134 18s. 7d.—Working cost. Mining expenses, 13s. 10·122d. per ton; transport, 6·276d. per ton; milling, 4s. 4·032d. per ton; cyanide works, 4s. 11·195d. per ton; general charges, 6s. 6·212d. per ton; maintenance (mine, mill, and cyanide works), 2s. 3·658d. per ton; mine development redemption, 3s. per ton; total cost, £1 15s. 5·495d. per ton; value of yield, £3 13s. 5·373d. per ton; profit, £1 17s. 11·878d. per ton. Expenditure on capital account. Mine development, £1239 5s. 10d.; main incline shaft, —expenditure on account, £106 8s. 11d.; machinery, plant, and buildings' account, £3677 4s. 1d.—£5022 18s. 10d. A dividend (No. 16) of 25 per cent. has been declared for the half-year ended June 30, payable to shareholders after receipt of European transfer lists to that date. The old battery was shut down on June 30, and operations commenced with the new 60-stamp battery on July 1. It will be noticed that a very small tonnage was crushed in June. This is due to the fact that the working parts in the mill were not renewed—thus reducing its efficiency —as it was not considered advisable in view of the shutting down of the old mill to incur the expenditure. Ore of a higher grade was therefore milled to counterbalance the small tonnage reduced. The working costs being distributed over this tonnage appear to be high, the actual expenses, however, are less than for the three preceding months.—George Albu, managing director.

NEW CHIMES.—Details of working, June:—Tons milled, 3,774; stamps working, 40; number of days mill ran, 29; yield from plates, 1644 ounces of gold; tailings treated by cyanide, 2850 tons; yield of bullion from cyanide works, 438 ounces.

ORION.—Details of working for June:—Tons milled, 4681; stamps working, 40; number of days mill ran, 29; yield from plates, 1295·75 ounces of gold; tailings treated by cyanide, 2964 tons; yield of bullion from cyanide works, 2329·45 ounces; nett profit for month, £5000 approximately.

OPHIR CONCESSIONS AND EXPLORATION.—The directors have received a letter from their agent, Mr. John Watts, dated Umtali, June 24, to the effect that he has procured two properties, one a reef property of 18 claims, called the Iron Duke, close to Pardy's, and the other an alluvial property of 10 claims, in the Chua Valley. He proposes to thoroughly prospect the property, and hopes shortly to report favourably on that and other claims that he is looking after. He likes the formation, and states that he will be greatly disappointed if there are not as rich gold mining properties here as any on the Rand. The company also reports that they have issued circulars to their shareholders offering an interest in their newly-acquired Australian property situated at Menzies, and called the Central Menzies Gold Mine (Limited).

SOUTH LUIPAARD'S VLEI.—Since sending you my report about your property I have spent a considerable time further on examining the same, and can more than confirm all I have said in regard to it on the before-mentioned occasion. There is no doubt the developments going on on the South Luipaard's Vlei and the Witpoortje farms are now amongst the most interesting events on the Rand, and, according to the best opinion in which I share, the mines situated on these two farms will become large contributors to the gold supply of the Rand in the present year. The opinion gains ground more and more that the Battery or Fern reef is really identical with the Main reef series, which, after the break, seems suddenly to reappear on the adjoining Luipaard's Vlei farm, taking a sudden turn south. However that may be, there is no doubt that the Fern or Battery reef is really giving better results than the Main reef, and I have no doubt whatever, after careful examination of your property, that the battery reef runs through almost everyone of those well selected 110 claims. The assays have given magnificent results from 2 to 4 ounces per ton, but these samples, of course, were taken from the pay streak, but the banket on your mine is sure to average from 16 to 18 dwts. per ton. Unless the company is prepared to spend very large sums in the erection of machinery, I would advise to forthwith divide the property into three portions of about 30 claims each. There is ample room on the property to provide ore for at least 100 stamps for 50 years, but of course that means a very heavy expenditure for one company. I have hitherto said nothing at all about the value of the Deep Levels of the "Bothas" series, and other reefs worked on the mines in the northern portion of the farm. As all these reefs dip south, it is quite clear that the Deep Levels of all of them must be found on your property. The dip of the reefs in this part of the Rand flattens considerably, and some of them, at all events, should be found at relatively small depths. Altogether I consider the prospects of our company as equal to those of any property in the western portion of the Rand.—(Signed) J. Watts.

TASMANIA CROWN SILVER.—Extract from manager's reports: —June 14th. For the past three days we have been opening out on a stringer running off at an acute angle from the No. 2 lode, and so far the prospects are very encouraging; there is some very good first-class ore in it, and to all appearance it is another branch or lode running in a direction some 10° to 15° east of north. June 21st. You will be glad to hear that the branch of ore I referred to in my last is developing very satisfactorily; to-day the face is fully 15 inches wide, and two-thirds of it first class ore; it has the appearance of going upwards and downwards very strong.—G. R. Tilly.

New Steamer for the Castle Company's Service.—We understand that the Castle Company has ordered from the Fairfield Shipbuilding Company, Glasgow, a steamer of dimensions somewhat similar to those of the *Tantallon Castle*, with large capacity for cargo, and ample accommodation for passengers.

— The Consolidated Gold Fields of South Africa (Limited) notify that the warrants for dividend on the six per cent. preference shares to June 30 have been posted.

BALAGHAT MYSORE.—Captain Joseph Pryor, July 9: Ogle's shaft. The 270 feet level south, on the Coromandel lode, has been driven 20 feet 3 inches, or 83 feet from the east crosscut. The quartz for this distance has varied from 15 inches to 6 inches wide, the assay value being from 5 dwts. to 7 dwts. per ton.—Tennant's shaft. This shaft has been sunk 12 feet 6 inches, or 21 feet below the 680 feet level. The ground now being passed through is still unproductive. The 500 feet level north has been advanced 18 feet, or 218 feet 3 inches from the shaft. The end is still in dyke. The No. 2 winze in the bottom of the 420 feet level north has been deepened 3 feet, or 7 feet below the level. The quartz has become much smaller, and is now only about 6 inches wide. I, however, think the lode has folded westward, and have, therefore, put the men to drive a little distance in this direction. Here the quartz is 5 feet wide, and of an assay value of 4 dwts. per ton. The crosscut west at the 420 feet level north, on the eastern part, has been advanced 15 feet, or 40 feet 6 inches from the level. Nothing of importance has as yet been met with.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending June 19: Howell (No. 2) shaft. 300 feet level. West crosscut from plat was driven 4 feet, total 64 feet; face still in very hard low grade sulphides, and garnets. The north drive off west crosscut from winze was lengthened 18 feet, total 22 feet, and stopped for the present; face in mineralised country.—240 feet level. Winze in east crosscut below far north stopes was sunk 20 feet, t tal 20 feet below this level; bottom in sulphides. We mined 30 tons sulphides, assaying 34 per cent. lead, 5 ounces silver and 17 per cent. zinc.—Marsh (No. 6) shaft. Second level. No. 2 tributers broke 17¼ tons carbonates assaying 22 per cent. lead and 70 ounces silver per ton. 54 tons carbonates were broken f om stopes around winze down west crosscut, assaying 27 per cent. lead, and 69 ounces silver per ton.—Junction 300 level. North-east drive along boundary was driven 16 feet, total length 33 feet, face in footwall country carrying sulphide ore. We picked out 1 ton sulphides, assaying 31 per cent. lead, and 32 ounces silver per ton, from the patches that show now and then.—Blackwood (No. 1) shaft. 200 feet level. Preparatory work is now proceeding at winze in No. 1 winze west crosscut, and also in western extension, where a winze will be sunk; work will then be commenced at a depth of about 40 feet in each place below this level in order to test the sulphides at this point. The week's assays vary, carbonates from 1·5 to 49 per lead, and 26·7 to 173·4 ounces silver per ton, sulphides from 2·5 to 52·5 per cent. lead, 5·5 to 24·7 per cent. zinc, and 2·6 to 8·1 ounces silver per ton.

CRAVEN'S CALEDONIA.—The following fortnightly report has been received from the mine, dated Charters Towers, June 6:—In the underhand stope from No. 9 level the reef remains about the same as last reported. In the four stopes over No. 9 level the reef is about 6 inches. The No. 8 level on Craven's reef has been extended a further 3 feet, making a total of 383 feet from the fault, which I started for to pick up the hanging-wall reef at this end of the mine that Millican's Caledonian Company left on our boundary, and it is about 14 inches thick. The level on the hanging-wall reef has been extended a farther 10 feet, making a total of 91 feet from the end of the crosscut, and the reef remains about the same in the face. In the underhand stope from this level the reef is about 8 inches thick. In the first three stopes over this level the reef is about 7 inches, but in the other five it will average about 1 foot thick. The haulage of quartz for the fortnight is 105 tons, making a total of 157 tons in the paddock.—(Signed) G. Cabassi.

CUMBERLAND GOLD (Cumberland, North Queensland).—June 4: I now beg to submit my report for month of May.—No. 5 level north. This level is now timbered within 25 feet of the face, and a leading stope has been brought up to this point. No definite reef had been disclosed in the leading stope during the month until the close of last week, when 7 inches of a reef showed making northwards. The continuation of this reef has been visible in the face of the level since the completion of the last contract, as mentioned in my previous report. Tenders have been called up for driving this level a further 50 feet.—No. 4 intermediate level. During the month this level has been driven 40 feet. Traces of ore have been visible since the beginning of the month. After the contractors had driven 25 feet a reef of 12 inches came in on the hanging wall, then crossed on to the footwall, where it is now showing 8 inches of ore. A small leader of 4 or 5 inches is to be seen on the hanging wall. A hard granite bar separates the two.—No. 4 north level. During the latter part of the month I have had eight men working in the stopes above this level on a reef ranging from 6 to 20 inches. The stone judging by appearance varies in quality.—No. 2 level north. The stone has given out for the present in the stopes above this level, but I am employing 4 men prospecting between the No. 2 shaft and the old No. 1 north shaft up towards the surface.—No. 4 level south. A contract was let to a party of men to raise stone from above this level at 15s. per ton. After raising 128 tons the men abandoned the contract. This stone is now going through the battery. Immediately below No. 3 level about 60 feet south of No. 2 shaft there is a block of ground showing a reef of 18 inches of very fair-looking stone; I have put on 4 men to take out this stone.—Anthony Gallagher.

GRESHAM GOLD.—The Mount Whitehead Gold Mine.—Location. District of Coolgardie, approximately 44 miles from the town of Coolgardie. West of the main road to the 90 mile, and about 22 miles from the 25 mile.—Area. The property consists of 18 acres. (Mr. Gray has, since writing this report, pegged out 12 acres additional, making the property 30 acres.) The number of the location is 3132, and it has been properly surveyed.—Shafts. Are two in number, 22 feet and 36 feet deep respectively.—Vein. Averages 4 feet in width, attaining in places to a width of 6 feet, the course 42° W. of S., with a dip to the west, and in No. 2 shaft it dips at 70° to the W. The walls of the vein are very well defined, and the country rock is highly decomposed, rendering sinking easy and cheap; further, there are no signs of any disturbance. The vein can be traced running throughout this claim.—Dumps. At No. 1 shaft the stone at surface measured 10 feet by 7 feet, equal to 9 tons. At No. 2 shaft the stone measured 9 feet by 11 feet by 2 feet, equal to 13 tons. Total quantity of ore at grass at the time of my inspection, 22 tons.—Shafts. No. 1 had been sunk 35 feet 6 inches, striking the vein at 31 feet from surface, at which point the vein had a dip of 110° to the west, showing a width of 4 feet of solid stone. On the west side of the shaft a leader of quartz, 10½ inches thick, with inclination to the west, was observed. This leader was found to carry gold. Blasts were put in and fired during my stay, the assays of which are shown below. No. 2 was 22 feet deep, 5 feet 6 inches by 3 feet 6 inches inside timbers. The vein was intersected 15 feet from surface, and is contained within well-defined walls of a reddish mottled decomposed granite; the vein matter, of white and stained quartz, measured 2 feet in the western corner of the shaft, and 3 feet in the eastern.—Quartz. Is very free from refractory minerals, containing only oxides of iron, but no sulphides; the gold contained in the particles of quartz is coarse and easily separated from the matrix.—Assays. Were made from carefully crushed samples taken from reduced samples of large bulk made at the mine, and broken by hand across the vein at the various points mentioned, and from the dumps selection was made by cutting the dumps across, as well as taking selections from all parts thereof. Assays.—No. 1. From No. 2 shaft, 5 ounces 15 dwts. 17 grains per ton; No. 2. From No. 2 shaft dump, 11 ounces 10 dwts. 10 grains per ton; No. 3. From No. 1 shaft borings, 3 ounces 11 dwts. per ton; No. 4. From cap of reef, 2 ounces 14 dwts. 4 grains per ton; No. 5. From stone at grass on outcrop, 2 ounces 3 dwts. 11 grains per ton; No. 6. From stone at grass on outcrop, 4 ounces 11 dwts. 2 grains per ton; No. 7. From dump No. 1 shaft, 4 ounces 6 dwts. 4 grains per ton; No. 8. From crosscut at surface at No. 1 shaft, 10 ounces 8 dwts. per ton; No. 9. From blasts from No. 1 shaft, 1 ounce 7 dwts. 2 grains per ton. Average contents of above, 5 ounces 15 dwts. 20 grains per ton. Average of samples from dumps, 7 ounces 18 dwts. 7 grains per ton.—Ore in sight. Upon a calculation of the ground opened up, being 29 feet in depth, and allowing only 300 feet of lineal extent, with an average width of vein matter of 4 feet, and with a gold content of 5 ounces to the ton, I estimate you have 2320 tons of ore in sight, of a value of £46,000, and when it be remembered that the vein can be reckoned upon to be available throughout the entire length of the claim (18·97 chains, or about 1250 lineal feet), the value of the claim is barely hinted at by the previous calculation.—Water. Can be easily obtained by using the facilities afforded by the contour of the country around this claim, inasmuch as it is surrounded by a range of hills on one side, and rising ground on the other; the former affording good catchment, the latter the retaining base for position for an extensive dam. Evidences from the vegetation around lead us to infer that at shallow depths water will be found in the sinking of the shafts. After a most careful and searching examination, not only of the claim itself, but of the ore exposed at surface, and from the workings, I am of opinion that this will prove to be a property of exceptional value—the quartz is rich enough to pay very handsomely; quantity is assured by the very permanent nature of the formation, and located as it is within a reasonable distance from Coolgardie, benefit will accrue from the railway which will within a few months connect Coolgardie with the seaboard, lessening freights and reducing the cost of all necessaries. The quartz being of a homogeneous nature, and the gold evenly distributed through it, average values can be counted upon, and permanency of richness relied on, as from the exhaustive examination made from surface and underground samples, though pockets of richer ore may be encountered, the general average value of the stone is sufficiently high to warrant my recommending this claim as one of great value, and predicting very satisfactory returns, and remunerative results under judicious and careful management.—W. Gray, M.E., Coolgardie.—Report on the Sultan Gold Mine: Locality. Three miles from Mount Whitehead, distant from Coolgardie about 42 miles.—Area, 12 acres, not yet surveyed. Number of location 3160.—Description. 15½ chains north-west, 8 chains south-west, 15½ chains south-east, 8 chains north-east, to starting point.—Course of vein. North-west and south-east dipping to the south. Width of vein, average 2 feet 5 inches, measurements taken in three places, at bottom of shaft, midway, and at 40 feet underlay 55°.—Shaft. 70 feet deep, 40 feet 6 inches vertical, 29 feet 6 inches on incline.—Levels. 22 feet (depth from surface) cut reef. Also 15 feet of drive at bottom of shaft.—Vein. Very solid, contained within good walls of very soft highly decomposed rock. Samples were taken very carefully by breaking down bulk samples from the vein at the points indicated. These were reduced at the surface, and the reduced samples quartered, crushed, and assayed.—Assays. Sample A, taken from the vein at the bottom level 18 ounces 14 dwts. 6 grains. Sample B, across the vein bottom level 11 ounces 11 dwts. 11 grains. Sample C, vein 69 feet from surface, 25 ounces 17 dwts. 17 grains. Sample D, from the dump, 11 ounces 3 dwts. 1 grain. Sample E, 40 feet 6 inches from surface, 1 ounce 12 dwts. Sample F, stone at grass taken from 20 feet level, 1 ounce 9 dwts. 11 grains. Average gold contents of above, 11 ounces 14 dwts. 14 grains. Average taken from all the samples mixed together and assayed gave 10 ounces 4 dwts. 1 grain. Fire assay of same, 7 ounces 10 dwts. 14 grains. The above assays, with the exception of the last, were made by panning from 1 lb. of stone in each case. Average of two samples from the dump gave 15 ounces 3 dwts. 14 grains.—Reef. This does not outcrop on the claim. The vein was intersected by the vertical shaft at 22 feet from surface, and from that point down to the 70 feet level we have disclosed a body of quartz contained within well-defined walls, with a very favourable country rock that will render sinking and driving both easy and cheap. The quartz itself is very uniform, and very little free good is outwardly visible, yet very coarse gold is obtained after panning, and this will be of great benefit in treating this ore.—Dump. Measured at the time of my visit, 14 feet 8 inches by 8 inches by 2 feet 6 inches, equals 18 tons. This stone was taken out from the vein starting from 22 feet from surface, and the drive of 15 feet. Reserve is naturally small, as the ground opened up consists of the shaft and drive, but from this we can estimate 170 tons of ore, averaging 10 ounces of gold to the ton, giving a value of £6800 from this small block of ground opened up in the short space of time the claim has been operated on.—General remarks. Although the development on this property is not extensive, the work done has proved the existence of a well-defined regular vein of gold quartz of extremely high value, and even supposing a lower grade of ore, which after the exhaustive series of tests I have made, and the averages struck from the different samples (10 ounces 4 dwts. 1 grain) I consider is not at all necessary, we have under notice a property of great promise, yielding an ore that can be easily treated, and from which most of the gold will be retained by first amalgamation. I am, therefore, of opinion that this property is of great value, and will develop ore reserves of great extent, easily mined and easily treated, and special facilities exist close to the claim for conserving large quantities of rain water.—William Gray, M.E.

HARMONY GOLD AND LAND.—Mr. Proctor, under date, writes as follows from Leydsdorp: The grass will not be burnt for another three weeks, but as soon as the country is cleared we must lose no time, as the season is very short. There is a great deal of attention being directed to the low country. Johannesburg people are getting hold of properties before the railway comes up. The Government have sent down the mining commissioner to inspect the district, Pietersburg will also become at an early date a large gold mining centre. Some of the recent discoveries in the vicinity are turning out more than favourably. It is impossible to say in this highly auriferous region which reef or which formation will be found to be most productive of gold. Almost weekly we hear of good strikes having been made outside our boundary.

MOUNT LYELL.—Mine manager's report for week ending June 12: Surface prospecting shaft, hanging wall. The shaft has been sunk 5 feet, total 62 feet. The sinking has been delayed, as we had to break away a bump in the pyrites to allow the skids being put in. There is no change to report.—No. 1 crosscut, No. 3 tunnel, north drive. The face has been extended 3 feet, total 14 feet.—No. 2 crosscut, north drive, No. 3 tunnel. The crosscut has been driven 2 feet, total 9 feet. The pyrites still very hard.—Indicator winze, north drive. The north drive has been extended 10 feet, total 14 feet alongside the pyrites. There is a little fahlore showing in the wall.—North drive, No. 4 tunnel. The contractors have driven 2 feet, total 167 feet. There is no improvement in the ground.—No. 1 cross cut, north drive, No. 4 tunnel. This crosscut has been driven 3 feet, total 21 feet. Pyrites still hard.—South drive, No. 4 tunnel. The drive has been advanced 7 feet, total 125 feet.—No. 1 crosscut, south drive, 50 feet level, engine shaft, No. 4 tunnel. The crosscut has been widened and made higher, and a start made to-day to sink in the copper pyrites.—No. 1 rise, south drive, 50 feet level, engine shaft, No. 4 tunnel. The rise was put up 4 feet, total 54 feet. The men are now engaged in timbering.—North drive, 100 feet level, engine shaft, No. 4 tunnel. The connection between this face and the south drive, No. 2 shaft, has been widened out to proper size, and a dam put in the west crosscut so as to turn all the water into No. 2 shaft.—Engine shaft, No. 4 tunnel. The sinking of this shaft was resumed on Monday, since which 2 feet have been sunk, making the depth below the 100 feet level 11 feet. Shaft dry and rock fair for breaking.—No. 5 tunnel. The contractors have driven 3 feet, total 1032 feet. Country hard conglomerate.—Progress report for week ending June 12: Through tramway Plate-laying and ballasting completed, and line open for traffic.—Haulage line. Earthworks ready for cable and plates.—Bank engine. Station yard in progress, and bank engine and boiler in process of erection.—Smelter site. Excavation in progress for full length. Continuation of railway into smelter site in progress. Brick and saw-mill plants running full time. Weather very wet; rainfall 4·55 inches.

MYSORE REEFS (Kangundy).—Fortnightly report of Captain M. Scantlebury, dated July 9: Underlie shaft. This shaft has been sunk 7 feet, now 80 feet below the 325 feet level. The lode is improving. We have now a branch of quartz against the hanging wall from 9 to 15 inches wide, assaying 1 ounce 6 dwts. of gold to the ton.—Stopes in bottom of 325 feet level north. The quartz now for 18 feet in length in the deepest point is 3 feet wide, and worth for an average from several samples taken 3½ ounces of gold to the ton. The quartz seems to widen as we follow it down almost at every point. 325 feet level north has been advanced 12 feet, now 171 feet from shaft. The quartz is 2 feet wide, assaying 6 dwts. of gold to the ton.—Vertical shaft. The 260 feet level north has been extended 15 feet, now 190 feet from shaft. The quartz is 9 inches wide, assaying 6 dwts. of gold to the ton. Winze below this level has been sunk 3 feet, now 28 feet below the level. The quartz is 3 feet 6 inches wide, assaying 15 dwts. of gold to the ton. Winze below 200 feet level south has been sunk 3 feet, now 78 feet 6 inches below the level. The quartz is 12 inches wide, assaying 10 dwts. of gold to the ton. Winze below 200 feet level north has been sunk 3 feet 3 inches, now 34 feet 9 inches below the level. The quartz is 2 feet wide, assaying 8 dwts. of gold to the ton. Trial shaft south has been sunk 4 feet, now 41 feet from surface. The quartz is 9 inches wide, and shows a little gold by panning.—Health. We have still a good many men down with fever.

NUNDYDROOG.—Thomas Richards, July 9: Report for the fortnight ending July 6: Taylor's shaft. The 1240 feet level south has been driven 14 feet 6 inches, total distance 14 feet 6 inches, Lode 1 foot wide, assays 2 dwts. 12 grains. The 1240 feet level north has been driven 14 feet, total distance 31 feet 6 inches. Lode 1 foot wide, assays 2 dwts. 12 grains. The 1000 north rise has been put up 7 feet 6 inches, total height 76 feet 6 inches, and communicated with the 920 north. At the point of communication the lode is 9 inches wide, and assays 6 dwts. 6 grains. In the stope in the back of the 760 north the lode consists of quartz 2 feet wide, assaying 8 dwts. 18 grains. The lode in the stope in the bottom of the 680 north consists of quartz 1 foot 6 inches wide, assaying 10 dwts. In the stope in the back of the 600 north the lode is 2 feet wide, and assays 7 dwts. 12 grains. The two stopes in the bottom of the 520 north the lode averages 2 feet in width, and 8 dwts. 3 grains in assay value. The lode in the stope in the back of the 520 north is 2 feet wide, and assays 6 dwts. 6 grains. In the stope in the bottom of the 370 north the lode is 2 feet wide, and assays 7 dwts. 12 grains.—Main shaft. Plat has been cut at the 1080 feet level, and the shaft sunk 1 foot 6 inches, total depth below the 1080 feet level 6 feet 6 inches. Lode 1 foot 6 inches wide containing stringers and patches of quartz, assays 3 dwts. 18 grains. The 1080 south has been driven 10 feet, total distance 102 feet. Lode 3 inches wide containing very little quartz, assays only a trace of gold. This drivage is now suspended. The 1080 north has been driven 18 feet, total distance 126 feet. Lode 1 foot 6 inches wide, assays 2 ounces gold per ton. The 1000 feet level north from crosscut east has been driven 7 feet 6 inches, total distance from shaft 212 feet 6 inches. Lode disordered. The side drivage south at this level has been extended 16 feet, total distance from crosscut east 52 feet, where it reached the crosscourse; and the drivage has been communicated with the main level by a crosscut of 13 feet driven along the crosscourse. At the point of contact with the crosscourse, the quartz is 1 foot wide, and assays 7 dwts. 12 grains. A rise has now been commenced in the back of this level a few feet north from the crosscourse. The 920 north has been driven from crosscut west 4 feet 9 inches, and the lode proving of no value, the drivage has been suspended. In the stope in the back of the 920 south the lode is 8 feet wide, and assays 18 dwts. 18 grains. The lode in the stope in the bottom of the 840 south is 2 feet 6 inches wide, and in two stopes in the back of this level averages 4 feet 6 inches in width, and 6 dwts. 6 grains in assay value. The 680 south from north crosscut east, at 270 feet in from the entrance, has been driven 7 feet, total distance 48 feet 6 inches. Lode of no assay value. This drivage has been suspended, and the rock-drill removed to open southward upon a lode met with at about 60 feet in from the entrance of the crosscut upon which a drivage has already been extended some distance northward. This new drivage south has been extended 4 feet, and the lode, which is 1 foot wide, of no assay value so far, will in future be referred to as the main lode. The 680 north from crosscut east at 270 feet in from the entrance, has been driven 11 feet 6 inches, total distance 28 feet 6 inches. This lode, which contains stringers of quartz over a width of 1 foot, carries a trace of gold, and will be referred to in future as Kennedy's lode. The 680 north crosscut has been extended 17 feet, total distance 148 feet, no change. The 520 feet level has been extended eastward on the crosscourse 17 feet 6 inches, total distance 356 feet 6 inches. At 323 feet in this crosscut a drivage northward has been commenced on what appears to be Kennedy's lode, and has already been advanced 27 feet 6 inches. The lode is 1 foot wide with a leader of quartz 2 inches wide, and assays a trace of gold. The crosscut east has been suspended, and the drivage north will be pushed onward with the object of effecting the earliest possible communication with the 440 south from Kennedy's, which will require some six or seven months to accomplish. The 370 crosscut east has been extended 8 feet 6 inches, total distance 69 feet. Some stringers of quartz have been met with. Kennedy's shaft has been sunk 5 feet, total depth 55 feet below the 600 feet level. The 600 south has been driven 22 feet 6 inches, total distance 98 feet 6 inches. Lode 2 feet wide, assays 13 dwts. 18 grains. The 600 north has been driven 25 feet, total distance 132 feet. Lode 2 feet wide, assays 2 dwts. 12 grains. The 520 south has been driven 28 feet, total distance 594 feet: quartz 3 feet wide contains a trace of gold. The 520 north crosscut west has been driven 21 feet 6 inches, total distance 39 feet 6 inches, no change. The 520 north crosscut east has been extended 7 feet 6 inches, total distance 53 feet 6 inches, no change. This crosscut has been temporarily suspended, and the rock-drill put to drive north the rise in the back of this level (the 520 north) to effect a communication with the Tank block workings, in order that arrangements may be made for safeguarding the interests of both companies in the extraction of the quartz up to the boundary line on either side. The intermediate drivage referred to has been extended north (from the rise) 10 feet 6 inches. The part of the lode carried is 3 feet 6 inches wide, and assays 1 ounce 16 dwts. 6 grains. The 440 south has been driven 25 feet, total distance 1021 feet. Lode 2 feet wide, with stringers of quartz, contains a trace of gold. The 440 south rise has been put up 50 feet 6 inches, total height 78 feet 6 inches. Lode 2 feet 6 inches wide, assays 2 ounces 16 dwts. 6 grains. In the stope in the back of the 440 south the lode is 2 feet wide, and assays 11 dwts. 6 grains, and in the stope in the back of the 440 north it is 10 feet wide, of an assay value of 3 ounces 16 dwts. 6 grains. The 370 south has been driven 16 feet, total distance 733 feet. Lode 4 feet 6 inches wide, assays 2 ounces 3 dwts. 18 grains. In the stope in the bottom of the 370 north the lode is 6 feet wide, and assays 10 dwts., and in two stopes in the back of the level the lode averages 5 feet in width, and 1 ounce 13 dwts. 18 grains in assay value. The 370 south from crosscut west, north of Kennedy's shaft, has been driven 16 feet, total distance 35 feet. Lode 1 foot wide, contains a trace of gold. The 300 south has been driven 27 feet 6 inches, total distance 614 feet 6 inches. Lode 1 foot 6 inches wide, assays a trace of gold. In the stope in the back of this level the lode is 1 foot 6 inches wide, and assays 10 dwts. In the stope on the south side of north shaft at the 230 feet level the quartz is 4 inches wide, and assays 7 dwts. 12 grains. The lode in the stope in the back of the 160 north is 2 feet wide, and assays 8 dwts. 18 grains. North shaft has been sunk 6 feet 6 inches, total depth 60 feet below the 520 level. The part of the lode which was formerly carried in this shaft has now been left standing in the footwall.—Old mill samples, Pulp, 1 ounce; tailings, 3 dwts. 18 grains.—New mill samples. Pulp, 1 ounce 7 dwts. 12 grains; tailings, 5 dwts.

TRANSVAAL GOLD, EXPLORATION, AND LAND.—Extracted from general manager's advices, dated July 5:—Mining. The work of removing the overburden at Theta was proceeding, although somewhat retarded at present, as the formation is large trap boulders, necessitating blasting. At Chi the deposit has been found above the fault in the old drive No. 42; thickness about 30 inches. Work at the other mines was proceeding steadily with no new feature to report.—New high level water race. A start has been made on the work for the dam.

YERRAKONDA.—Fortnightly report of Captain M. Scantlebury, dated July 9: Beresford's shaft. This shaft has been sunk 8 feet 3 inches, now 63 feet 3 inches below the 300 feet level. The lode is 9 feet wide, composed chiefly of quartz and iron pyrites, the samples varying from 2 to 4 dwts. of gold to the ton. Crosscut west, 200 feet level north, has been advanced 10 feet, now 71 feet from level. New engine shaft has been sunk 5 feet 6 inches, now 213 feet 6 inches from surface. The rock is hard and the water very quick. South shaft has been sunk 7 feet, now 130 feet from surface. The lode is 2 feet 6 inches wide, assaying 4 dwts. of gold to the ton.—Health. We have still several men down with fever.

BAYLEY'S REWARD CLAIM.—Mining report, dated June 10: Sylvester shaft. South drive at the 380 feet level has been driven 10 feet, total 17 feet from crosscut. Lode during the week has narrowed considerably, being at present slightly over 4 feet wide, still highly mineralised, but not exposing any gold, the stone being poor; consequently is being placed on one side for future treatment.—220 feet level. An intermediate drive south from the winze at the 255 feet level has been since commenced. Driven 12 feet, and broke through to where we had the gold in sinking, but at present it ppears to be patchy. We have seen a little gold, but it is not sufficiently rich in bulk to warrant us in taking it out at present, consequently the work at this level will be discontinued for the time being.—100 feet level. Stopes at this level are yielding stone of the average grade crushed, lode being from 4 to 6 feet wide, exposing fine gold, but not rich.—Gordon shaft. South stopes continue to return a large quantity of stone, in which which gold is occasionally seen breaking. This is now being worked from what is known as the 50 feet level to within 12 feet of the surface, lode being at the north end of the stope 6 feet wide, and at the south 2 feet.—North stope. North stope continues from 4 to 5 feet wide, at times showing a little gold.—No. 1 intermediate. This stope has now been worked from the intermediate drive to the 50 feet level, the stone being all taken out from Gordon shaft to the northern fault in the lode towards Begelhole shaft.—Air shaft. The south stope from the air shaft shows no particular change; lode still 2 feet wide, but not exposing any gold at present.—North drive. North drive from the bottom of the air shaft is being timbered previous to stoping between the two levels.—North of Big Blow. Prospecting north of the Big Blow has been continued on the surface, but up the present no important development visible.—Stone treated. During the fortnight there has been crushed 345 tons of stone taken from the various stopes—Sylvester, Gordon, and the Air shaft—also a small quantity from the dump—Gordon shaft—which is about equal value. —Yield. The yield has been 410 ounces of retorted gold.—(Signed) W. H. Matthews.

HARQUAHALA.—Copy of Mr. Robert M. Raymond's report for the month of June:—Mining department. Bonanza group. Ore-breaking. Discovery and Doherty veins. Old pillars. About 300 tons of ore have been broken from these during the month, the ore varying in value from $8 to $15. The proportion of pay ore in the pillars is not large.—Porphyry stope. A small extension of this near the station of the 4th level has been cut out, and yielded 100 tons, running from $6 to $7.—Iron vein above 4th level. The small stope opened up here has yielded over 200 tons of ore of very good grade, ranging in value from $10 to $40.—Prospecting. East contact, 4th level. The main drift has been advanced 40 feet, a raise of 20 feet made at one of the more favourable spots, and a crosscut run into the hanging wall of over 20 feet. The main drift lost the hopeful appearance it had a month ago, and the other developments have given no further encouragement. Crosscuts into the hanging wall country are now being run.—West contact. Developments have been continued here in the westerly extension, and 123 feet of crosscuts and drifts run. The quartzite along the contact and the slate in the hanging wall have been thoroughly prospected, but the ground has been entirely barren.—Winze under discovery vein, 5th level. To investigate further the possibility of the extension of the Discovery vein down into the porphyry, a winze was sunk in the line of dip of the vein. It began at the streak known as the contact streak, and almost immediately entered porphyry, in which it was sunk 20 feet. From the bottom of this drifts were run 15 feet north-west and 25 feet south-east. No indication of the continuation of the vein into the porphyry was found, but it showed, as other places do, that the Discovery and Doherty veins lie above the contact streak, and are branches or rays from it. A diamond drill hole was also run from No. 1 crosscut, 6th level, to investigate the same point, but nothing more than porphyry found in it.—Winze, 7th level. A winze was sunk 30 feet on the continuation of the Iron vein streak downwards. It was sunk in porphyry, with quartzite in the hanging wall. The latter is very hard and barren, and the continuation of the Iron vein disappears completely. Following this farther, the porphyry and quartzite would rise to the ground opened up in the west contact, to which it is very similar.—Iron vein, 4th level. A short distance south of the ore body opened up here a crosscut and raise following the inclination of the vein was run. Small bunches of low-grade ore were found, but nothing of value. Further south a diamond drill hole from No. 5 crosscut, 5th level, pierced the iron vein streak, but at that point it was hard and carried only 20 to 30 cents in gold.—Underlying porphyry. The diamond drill hole was continued down into this, and at 235 feet passed through the porphyry, and entered a stratified quartzite, into which the drill has cut 50 feet—as far as it will reach. At the under contact of the porphyry a narrow streak of quartz and iron oxide was encountered, assaying 27 cents, over which was a narrow band. of slate, assaying 13 cents. The underlying quartzite shows no indication of any value.—Golden Eagle group.—North drift, tunnel level. The ore body under this has yielded 336 tons, varying from $12 to $25. It continued down about 15 feet below the drift, where it has cut out.—No. 1 winze, 150 feet level. The developments here show the porphyry lying very flat, and forming a basin just where the shaft goes down. Drifts have been run 30 feet to the north and 61 feet to the south along the contact. Occasional streaks showing traces of gold have been found, but nothing of value. Both drifts are being pushed along.—Milling department. 20 stamps have been run 27 days. The ore milled and the returns are as follows:—Ore on hand after April run 181 tons.—Ore milled. Bonanza, 600 tons; Golden Eagle, 336 tons = 1117 tons. Ore milled, 1023 tons; ore on hand July 1, 94 tons. Bullion estimated to yield $10,000; profit, $750 = $10,750.—Expenses. Ore breaking and development, $11,300.—Tailings plant. This has just been tested up and everything is in good working order. The expenditure during the month has been $5200. The plant consists of six ore-vats with capacity of 75 tons each, one storage tank, one tank for gold solution, three zinc boxes, one sump for solution running from the latter, and pump for transferring to storage tank. The hoisting arrangement consists of a wire-rope tramway, capacity of 150 tons per day, with three-drum hoisting engine, stationary head-tower and movable tail-tower and ore-bin. Steam is obtained from the mill boilers. Arrangements will be made for sluicing out the tailings from the vats in a short time.

MYSORE GOLD.—R. Hancock, July 9: Mining operations for the fortnight ending July 8. Rowse's shaft. 1460 feet level north of crosscut west. This end has been driven 10 feet, making a total distance driven of 211 feet. We have suspended the driving of this end, and have put the men to rise in the back of the 240 feet north of the crosscut against a winze started in the bottom of the 1360 north of crosscut for the purpose of improving the ventilation. Risen 2 feet. The lode is 2 feet wide, assaying 1 ounce 2 dwts. 4 grains.—1460 feet level north of sump winze. This has been driven 18 feet, making a total distance driven of 296 feet. The lode is 4 feet wide, assaying 1 ounce 21 grains.—1460 feet level south of sump winze. Driving south from the bottom of the south winze. Driven 19 feet, making a total distance driven of 79 feet. The lode is 4 feet wide, assaying 10 dwts.—1360 feet level south of crosscut. There are three stopes in the back of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 12 dwts. 9 grains.—1360 feet level north of crosscut. We have started to sink a winze in the bottom of this level 66 feet north of the crosscut. Sunk 3 feet. The lode is 2 feet wide, assaying 2 dwts. There are two stopes in the back of this level, the average width of the lode being 1 foot 6 inches, giving an average assay of 1 dwt. 22 grains.—1360 feet level north of sump winze. We have resumed the driving of this level. Driven 3 feet, making a total distance driven of 152 feet. There are a few small stringers of quartz which assay 3 dwts. 6 grains.—1360 feet level south of sump winze. This level has been driven 13 feet, making a total distance driven of 98 feet. The lode is 4 feet wide, assaying 18 dwt. 6 grains.—1260 feet level north. This level has been driven 20 feet, making a total distance driven of 800 feet. There are five stopes in the back of this level, the average width of the lode being 4 feet, giving an average assay of 13 dwts. 9 grains.—Driving south on the fold from the top of the sump winze. Driven 12 feet, making a total distance driven of 29 feet. The lode is 2 feet wide, assaying 19 dwts. 14 grains.—1260 feet level south. There are three stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 1 ounce 0 dwts. 5 grains.—1160 feet level north. There are three stopes in this level, the average width of the lode being 2 feet, giving an average assay of 16 dwts. 23 grains.—1160 feet level south. This level has been driven 23 feet, making a total distance driven of 475 feet 6 inches. The lode is 1 foot 6 inches wide, assaying 3 dwts. 6 grains. There are two stopes in this level the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 13 dwts.—North of the crosscut east. This end has been driven 2 feet, making a total distance driven of 106 feet 6 inches. The lode is 6 inches wide, assaying 1 ounce 18 dwts. 6 grains.—South of the crosscut east. This has been driven 13 feet, making a total distance driven of 67 feet. The lode is 1 foot wide, assaying 1 ounce 9 dwts. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce 4 dwts. 19 grains.—1060 feet level north of crosscut. This end has been driven 6 feet 6 inches, making a total distance driven of 61 feet 6 inches. We have suspended this and put the men to drive a crosscut east from the breast of the end. Driven 6 feet.—890 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 3 dwts. 6 grains.—890 feet level north of crosscut. This end has been driven 17 feet 6 inches, making a total distance driven of 376 feet. Lode 1 foot wide, assaying 10 dwts. The winze in the bottom of this level has been sunk 11 feet 6 inches, making a total depth of 33 feet 6 inches. The lode is 2 feet 6 inches wide, assaying 2 ounces. There are three stopes in the back of this level. The average width of the lode being 2 feet 6 inches, giving an average assay of 1 ounce 6 grains. 890 feet level south. This level has been driven 10 feet 6 inches, making a total distance driven of 358 feet 6 inches. We have temporarily suspended the driving of this.—780 feet level north. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 15 dwts.—780 feet level north on new chute. There are five stopes in this level. The average width of the lode being 2 feet 4 inches, giving an average assay of 1 ounce 1 dwt. 11 grains. We have started a crosscut east in this level 288 feet north of the crosscut for the purpose of effecting a communication with Crocker's shaft. Driven 5 feet 6 inches.—620 feet level north of crosscut. There are four stopes in this level. The average width of the lode being 2 feet 4 inches, giving an average assay of 9 dwts. 7 grains.—620 feet level south of crosscut. There are two stopes in this level. The average width of the lode being 2 feet 3 inches, giving an average assay of 7 dwts. 12 grains.—Driving south on the branch in the 620 crosscut east. This end has been driven 2 feet, making a total distance driven of 50 feet. The lode is 1 foot 6 inches wide, assaying 8 dwts, 11 grains.—Crocker's shaft. This shaft has been sunk 20 feet, making a total depth of 291 feet below the 620 feet level.—400 feet level north. There are two stopes in the back of this level. The average width of the lode being 1 foot 6 inches, giving an average assay of 9 dwts. 18 grains.—236 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 9 dwts. 2 grains.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 13 dwts. 1 grain.—Gilbert's shaft, 520 feet level north. There are three stopes in the back of this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 11 dwts. 11 grains.—520 feet level south. The lode in the stope in the back of this level is 1 foot 8 inches wide, assaying 1 ounce 1 dwt. 14 grains.—430 feet level north. There are two stopes in this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 21 grains.—360 feet level north. The lode in the stope in the bottom of this level is 2 feet 4 inches wide, assaying 1 dwt. 23 grains.—290 feet level north. The lode in the stope in the back of this level is 2 feet 2 inches wide, assaying 1 ounce 4 dwts. 19 grains.—290 feet level south. The lode in the stope in the bottom of this level is 2 feet 3 inches wide, assaying 5 dwts. 5 grains.—180 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet 9 inches, giving an average assay of 17 dwts. 14 grains.—Tennant's shaft. 750 feet level north of the crosscut west; This level has been driven 25 feet, making a total distance driven of 52 feet, the lode is 1 foot 6 inches wide, assaying 3 dwts. 6 grains.—520 feet level north. There are two stopes in the bottom of this level, the average width of the lode being 1 foot 7 inches, giving an average assay of 9 dwts. 2 grains.—Schaw's shaft, 450 feet feet level north of the crosscut. There are three stopes in the back of this level, the average width of the lode being 1 foot 3 inches, giving an average assay of 6 dwts, 17 grains.—450 feet level south of crosscut. This level has been driven 2 feet 6 inches, making a total distance driven of 334 feet 9 inches; there is nothing here to report. The winze in the bottom of this level has been sunk 12 feet 9 inches, making a total depth of 102 feet 9 inches. The lode is 1 foot wide assaying 12 dwts. 14 grains. There are three stopes in the back of this level, the average width of the lode being 1 foot 5 inches giving an average assay of 14 dwts. 3 grains.—McTaggart's shaft. This shaft has been sunk 1 foot, making a total depth of 71 feet 9 inches from the 550 feet level.—550 feet level north. This level has been driven 13 feet 3 inches, making a total distance driven of 157 feet 2 inches. The lode is 9 inches wide, mixed. No assay made. 550 feet level south of crosscut west. This end has been driven 13 feet 6 inches, making a total distance driven of 129 feet 9 inches. The lode is 6 inches wide, assaying 5 dwts, 21 grains.—320 feet level south. There are three stopes in the back of this level, the average width of the lode being 1 foot 4 inches, giving an average assay of 6 dwts. 23 grains.—Glen shaft, 250 feet level north, No. 1 crosscut east. This has been driven 3 feet 3 inches, making a total distance driven of 33 feet.—Ribbledale's shaft. The stripping of the rise has been completed to the 1060, and the men have been engaged cutting a plat at that point. Sinking below the 1060 will be started to-morrow.—1460 rise; This has been put up 7 feet 6 inches, making a total height of 12 feet 6 inches.—Williams' shaft, crosscut east from 173. This has been driven 2 feet 10 inches, making a total distance driven of 134 feet 6 inches. Health good. Water very scarce.

NEW GUSTON.—The following cable information has been received from the mine: Output June month. Ore shipped, 2395 tons. Value (estimated) $26,370. Mine expenses, $16,150.—Ore shipments. The tonnage for June month, viz., 2395 tons, consisted of three carloads (40 tons) of high grade ore shipped to the Philadelphia Smelting and Refining Company (Pueblo); 15 cars (183 tons) of high grade ore shipped to the San Juan smelter, Durango, and 182 cars (2172 tons) shipped to the Silverton smelter.—The mine superintendent, under date July 9, reports, viz.: No. 9 level, South drift. Raise and drift at north end of stope. At the north end of stope a raise has been put up 30 feet, and from the top of raise a drift has been driven back north 38 feet, and communicated with No. 8 level shaft crosscut. The drift will later be driven south from the top of raise (over the stope) and form our main south drift at No. 8 level.—South drift stope. Length of stope 118 feet.—North portion of stope. Height over back of level 59 feet for 51 feet in length; width of ore 9 feet.—Centre of stope. Height over back of level 52 feet for 37 feet in length; ore scattered.—South portion of stope. Height over back of level 59 feet for 30 feet in length; width of ore 4 feet. Three classes of ore are being met with, viz.: (1) Peacock copper; (2) yellow copper; (3) iron pyrites. —Value of ore. (1) Peacock copper, 150 to 200 ounces silver per ton; gold, seven-tenths to 1 ounce per ton; copper, 24 to 30 per cent. (2) Yellow copper, 16 to 48 ounces silver per ton; gold, two-tenths to six-tenths ounce per ton; copper, 9 to 14 per cent. (3) Iron pyrites, 10 to 13 ounces silver per ton; gold, three-tenths to ½ ounce per ton; copper, 2 to 3 per cent. The stope continues to look well.—No. 10 level. South drift. Stope north of winze. Length of stope 21 feet; height over back of level 58 feet, width of ore 4 feet.—Character of ore. Iron pyrites, value 9 to 12 ounces silver per ton: gold, two-tenths to three-tenths ounce per ton; copper, 2 to 3 per cent.—South drift stope. Height over back of level 58 feet for 68 feet in length. There is no ore to value for a length of 47 feet, remaining 21 feet ore scattered.—South portion of stope. Height over back of level 51 feet for 40 feet in length; width of ore 10 feet. Three classes of ore are being met with, viz.: (1) Peacock copper; (2) yellow copper; (3) iron pyrites. Value of ore: (1) Peacock copper, 130 ounces silver per ton; gold, ½ ounce per ton; copper, 29 per cent.; (2) yellow copper, 14 to 22 ounces silver per ton; gold, ¼ to ½ ounce per ton; copper, 9 to 13 per cent.; (3) iron pyrites, 9 to 12 ounces silver per ton; gold, two-tenths to four-tenths ounce per ton; copper, 2 to 3 per cent. The south portion of stope looks well.—No. 11 level. South drift stope. Length of stope, 127 feet.—South portion of stope. Height over back of level 30 feet for 23 feet in length; width of ore, 3 feet.—Centre of stope. Height over back of level 37 feet for 82 feet in length; width of ore, 10 feet.—North portion of stope. Height over back of level 30 feet for 22 feet in length; width of ore, 6 feet. Three classes of ore are being met with, viz.: (1) Peacock copper: (2) yellow copper; (3) iron pyrites. Value of ore: (1) Peacock copper, 130 to 150 ounces silver per ton; gold, ½ to seven-tenths ounce per ton; copper 24 to 30 per cent.; (2) yellow copper, 9 to 25 ounces silver per ton; gold, three-tenths to ½ ounce per ton: copper, 10 to 12 per cent.; (3) iron pyrites, 7 to 10 ounces silver per ton; gold, one-tenth to ¼ ounce per ton; copper, 3 to 5 per cent. The stope looks well.—No. 12 level. North drift. Length of stope, 38 feet; height over back of level, 8 feet; average width of ore, 18 inches.—Character of ore, Iron pyrites, with nodules of yellow copper.—Value of ore. 10 to 22 ounces silver per ton; gold, two-tenths to four-tenths ounce per ton; copper, 3 to 5 per cent.—South drift stope. Length of stope, 12 feet; height over back of level, 25 feet. We are opening in from the ends of winze to determine the size of the ore,—No. 13 level. Shaft crosscut. Distance driven 10 feet, total distance driven from shaft 29 feet. The contractors have not driven more during the past fortnight owing to our having had to effect certain repairs to our No. 10 station pump.

NINE REEFS.—Superintendent's report for fortnight ending July 9: Vyvyan's shaft. The stopes in the bottom of the 220 feet level south continue to yield quartz of from 6 inches to 1 foot wide, and of an assay value of 1 ounce 11 dwts. 9 grains of gold per ton. The stopes in the back of this level produce quartz of from 6 to 9 inches wide, and of an average assay value of 1 ounce 5 dwts. 2 grs. per ton. The stopes in the bottom of the 145 feet level south produce quartz of 9 inches wide, and assay 18 dwts. 4 grains per ton. The quartz in the stopes in the back of the 145 feet level is getting somewhat smaller, being now of a width of only from 6 to 9 inches wide, it, however, assays on an average 14 dwts. 2 grains per ton.—South shaft. During the past fortnight our usual progress in sinking the shaft has been interfered with by our being obliged to take down some dangerous heavy ground from the hanging-wall side of the shaft. I am, however, glad to say this ground is now secure, and the sinking of the shaft is again resumed. It is now down 44 feet below the 210 feet level; the lode continues from 3 to 4 feet wide but as yet it only produces a little quartz, this however, assays 7 dwts. per ton. The crosscut west of the shaft at the 210 feet level has only been advanced 7 feet or 100 feet from the level. We have suspended this crosscut for the present. The 210 feet level north has been extended 13 feet 3 inches or 110 feet 3 inches from the shaft, the lode is of a kindly character and occasionally yields a little quartz, but of too low a value to pay for milling. About 5 feet behind the present end we communicated with the winze sunk from the level above. This has very considerably improved our ventilation. The men at the 210 feet level south have recently been engaged taking up the bottom of their level. This is now completed, and the driving of the end again resumed; it is now 78 feet 3 inches from the shaft. The lode is of a promising appearance, and now carries quartz of about 4 inches wide. Its value just now is of low grade, but I am hoping it will improve ere long.—Mc Taggart's No. 1 shaft. In consequence of the steadily increasing water, it is a difficult matter to keep the men at work in this shaft. The late contractor has refused to continue working, and not being able to get a fresh party to take this up, the shaft and level have been idle for some days. I am, however, pleased to say these were reset on the 6th inst, and the men appear as if they will persevere with the work. The present depth of the shaft is 42 feet below the 100 feet level, the lode is from 10 to 14 inches wide, and assays 5 dwts. 2 grains per ton. In consequence of the above, but little has been done at the 100 feet level north since last report, its present distance is 125 feet 9 inches from the shaft. The end is still in dyke.

No. 7 NORTH-EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, June 7:—Balks and party crushed 22 tons 10 cwts. for a yield of 17 ounces 4 dwts. 12 grains of smelted gold. Wherry and party crushed 20 tons 15 cwts. of stone, but the result will not be known until to-morrow. I have let a block of ground in No. 1 level west to Northey and party. I have also let a block of ground at the back of No. 4 level east to Perry and party, and the adjoining block to Williams and party. Paul and party have also the adjoining block to Balch and party at the back of No. 3 level east. Tuckett and party have their stone bunchy on the back of No. 3 level west, but it looks payable. Williams and party have a reef of an average of 15 inches in thickness, which looks like good stone. Hamilton and party are also putting through a small crushing, the result of which I will know to-morrow. Stone hauled for the fortnight about 51 tons. A sum of £25 has been paid to the Golden Gate Company, being this company's first contribution towards the cost of continuing the diamond drill boring.—(Signed) John T. L. Williams.

SIMMERS GOLD MINES.—The company's agent, at Barberton, writes under date June 21: "I herewith enclose title deeds of property; also report by Mr. Janson, and sketch plan. By the end of the month I will send a report from the manager, Mr. Robert. I cabled you last week I had secured 12 claims adjoining the property, but, in fact, I pegged out 18, as the miners discovered a reef which was out of the boundary, and we thought it best to secure the same at once; therefore, the company will possess altogether 42 claims. Since the discovery at the Sheba the country is in a great state of excitement and pegging-out is carried on everywhere. On going out last week and examining the property, I was struck with the fact that in every bit of quartz I took, whether in the reef or drift, I found gold. They are putting in a drive to catch a certain reef, and expect to meet other leaders in doing so. In the new reef which they found they are putting a shaft."—Mr. A. C. Janson's report, June 18: Gentlemen, In compliance with the request of your local agent, in Barberton, to lay out the necessary work and report on your property, I visited the ground on the 4th inst. The Simmers Mine is situate on the North De Kaap range, and is distant from Barberton about 16 miles. There is a good level transport road to the mine, and as the railway will be open to Barberton within the next few months, this will enable all material required to be delivered at the mine at a comparatively low cost. Your property consists of 24 claims in one consecutive line, but I would advise you to have the ground surveyed and repegged as shown per sketch plan herewith, as there is a drive of from 90 to 100 feet long and a number of reefs running through the hill on which your ground is located, and which are not within your present beacons. The drive, if continued, would intersect your several lodes at a low level, and would give you a large amount of backing for future mining operations. It was put in by the original syndicate at the lowest level of the ground, but owing to want of funds they were unable to continue it far enough to intersect the lodes. The country rock consists of talcose schists and sandstones, and is very favourable for cheap mining. I have taken samples from the various prospecting shafts and cuttings as shown in the plan, as also from several parts on the outcrops of the various lodes, and I obtained fair prospects of free gold from all of these. I should estimate the average value of the stone at from 8 to 10 dwts., and as the working facilities are so great (the Lampogwana river running within 25 yards of your property) anything above 3 dwts. should yield a profit. The work which I have laid out consists of a drive, which at about 60 feet will intersect a body of ore from 4 to 5 feet wide and several prospecting cuttings, and when this work is completed I shall be enabled to send you a more full and detailed report on the property. From the number of the gold-bearing lodes in your ground, and the exceptional facilities for cheap mining and milling, I have every confidence that with further development and judicious management, your property should pay handsomely.

RAND CENTRAL ELECTRIC WORKS (LIMITED).—The offices have been removed from Warnford-court, E.C., to 120, Bishopsgate-street Within, E.C.

The LIST CLOSES on or before Twelve Noon on TUESDAY, the 6th August, for TOWN AND COUNTRY.

RHODESIA GOLD REEFS (PURDON'S), LIMITED.

CAPITAL £75,000, in 75,000 Shares of £1 each, of which 35,000 Shares will be allotted to the Vendor in Part payment of the Purchase Price, and 40,000 Shares are now offered for public subscription. Payable 2s. 6d. on Application, 7s. 6d on Allotment, 5s. per Share 30th September, 5s. per Share 30th November, 1895. Shares may be paid up in full. The Articles of Association provide for the issue of Share Warrants to Bearer.

DIRECTORS.

CHARLES McCULLOCH, Esq., 7, India Buildings, Liverpool (Director Afrikander Gold Mining Company, Limited).
CHARLES H. LANGMEAD, Esq., Hilsboro, Lawrie Park Road, Sydenham, S.E.
J. G. SMITH, Esq., Wiggen Hall, Watford (Director Henderson's Transvaal Estates, Limited).
F. E. HARMAN, Esq., F.G.S., M.I.M. & M., 20, Warwick Gardens, Kensington, W. (formerly Geological Expert to the Bechuanaland Exploration Company, Limited).

LOCAL REPRESENTATIVE.

FRANK A. PURDON, Esq., Buluwayo, South Africa.

BANKERS.

MANCHESTER AND LIVERPOOL DISTRICT BANKING COMPANY (LIMITED), 75, Cornhill, London, E.C., Manchester, Liverpool, and Branches.
STANDARD BANK OF SOUTH AFRICA, Limited, Buluwayo, South Africa.

BROKERS.

Messrs. CUTCLIFFE, LEY, and McCULLOCH, 7, Adam's Court, Old Broad Street, and Stock Exchange, London, E.C.

SOLICITORS.

Messrs. HEPBURN, SON and CUTCLIFFE, Bird-in-Hand Court, Cheapside, E.C.

AUDITORS.

Messrs. FORD, RHODES, and FORD, 23, College Hill, E.C.

SECRETARY (*pro tem.*).

W. A. STEARNS.

OFFICES (*pro tem.*): 23, Leadenhall Street, London E.C.

ABRIDGED PROSPECTUS.

This Company is formed to purchase 220 Gold Claims in Matabeleland (equivalent to over 5 miles of reef), and to develop and deal with these and other properties.

The properties have all been selected with great care, and are located in the well-known districts of Selukwe, Bembesi, Umsingwani, and Buluwayo, being distributed over a wide area of gold-bearing country.

The reefs in question are indicated by extensive remains of ancient workings, consisting of open workings and shafts, which have hitherto been an almost infallible guide to prospectors in the discovery of valuable properties.

The particulars contained in this Prospectus, and the annexed description of claims, have been supplied by Mr. Frank A. Purdon, the Vendor, a gentleman holding a high position and reputation in Buluwayo, and by the Prospectors who originally selected the claims. It will be seen therefrom that the claims have been acquired in some of the best Gold districts of the country, and are of a highly promising and valuable character.

Mr. Purdon has such confidence in the value of the properties now about to be acquired by the Company that he has offered to act as its Local Representative without salary until actual profits are being earned.

The Lockwood, Rachills, Snowball, and Tsangashauna claims in the Bembesi District, 60 in all, were pegged out by Messrs. G. F. Hope Johnstone and H. E. Hunter, men of experience in the country and in other parts of the world in prospecting for gold.

The Lady Midas Reef—20 claims in the Buluwayo District—prospects are regarded as excellent. Here the old workings are very continuous, and for some distance there is a double set, showing that the ancients worked two parallel reefs. This reef, being on the same line, is believed may be a continuation of the Criterion Reef, which recently sold for a large sum.

The following 110 claims were selected by Mr. Frederick Storrier, the discoverer of the Queen's and a number of properties owned by the Willoughby's Consolidated Company. The Lion claims—(10)—in the Umzingwani district, is situated near valuable holdings owned by the Matabele Gold Reef and Estates Company; the Acorn (20), Capricorn (20), Acacia (30), Longago (20), and Brokers (10) Claims are in the Selukwe district, in which are situated the Bonsor, Tebeque, Dunraven, Sheba, Bongola, and other well-known reefs. Old workings led to the discovery of the whole of these, which have since turned out well. Wood and water are abundant.

As the properties to be acquired are sufficient to warrant the formation of several Companies, it is intended as claims are developed to sell them. This Company would receive a substantial interest in such subsidiary Companies.

Mr. F. E. Harman, who is interested in the sale to the Company, accompanied the Pioneer Column into Mashonaland as leader of the prospecting party sent into the country by the Bechuanaland Exploration Company. The Company will have the advantage of Mr. Harman's practical knowledge as a Mining Engineer, gained during 2½ years' prospecting and reporting upon gold properties in South Africa, during which he formed a high opinion of the richness of the gold belts traversing the districts in which the Company's properties are situated.

The terms upon which the Company will acquire the properties, and which provide for the payment by the Vendor of all expenses attending the formation, incorporation, and registration of the Company, is £40,000, as to £5000 in cash, and as to £35,000 in fully-paid Shares. This is the only contract entered into on behalf of the Company, and it can be seen at the office of the Solicitors.

The British South Africa Company has granted the Company the right to locate 150 Gold Claims within the Chartered Company's territories south of the Zambesi.

The amount reserved for Working Capital is £35,000, which it is considered will amply suffice for testing the 220 claims, for locating the 150 claims, and for the development of such of the 370 claims as may prove to be of exceptional merit.

Applications for Shares should be made on forms accompanying the Prospectus, and sent with the amount of the deposit to the Company's Bankers.

Prospectuses and Forms of Application can be obtained at the Company's London Bankers and Branches, Brokers, Solicitors and at the Company's Offices.

31*st July*, 1895.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(BY OUR SPECIAL CORRESPONDENT).

SHAREHOLDERS in Cornish mines are, for the most part, in much better temper and spirit than they were a fortnight ago, and the belief is expressed on all hands that after the long period of depression which at times has threatened to overwhelm and extinguish the industry, there is again a rift in the clouds. This time it appears to be based on the prospect of a general improvement in trade throughout the country, and in which the tin industry will not be long behind the others in participating. The tin market is, however, in a peculiar condition, for although Mr. Strauss, during his election campaign in the Mining Division, did speak of the position of tin as sound, it is apparently admitted that the syndicate which has been operating for a considerable time is holding somewhere about 10,000 tons of tin, which must sooner or later come on the market. Until this, or the greater part of it, is absorbed, however, we presume it is not likely that any great rise will take place. People here are, however, confident, and are backing their opinion that the next month or two will see tin something like £10 or more a ton higher. The share market has been and continues very active, and more business has been done in the last week or ten days than for a month or six weeks before. Orders have been numerous, but prices have so hardened that many have been incapable of execution. The significant feature is that most of the orders have come from outside the county, and some of them from people who have never before apparently held shares in a Cornish mine. Prices have risen all round, and the market value of the principal mines has increased to the tune of thousands of pounds.

CHIEF interest attaches just now to Dolcoath, and the issue of the new shares. Some surprise was expressed in Cornwall at the fact of the syndicate which acquired the right to the 100,000 shares, offering half of them to the public at the small premium of 2s. 6d., at which they found ready applicants. The object doubtless was to scatter the shares, and thus provide a larger market for them, and this object, judging by the desire to purchase at even higher premium, has been achieved. The action of the syndicate has, of course, been criticised by some who would have liked to have had the same opportunity, but the general opinion is that a good stroke of business has been done, which will not be without its results to the holders of the other 50,000 It will be surprising if the premium is not three half-crowns or more before very long. The mine is looking well, and the arrangements for the sinking of the new shaft, and the erection of the new machinery is proceeding as rapidly as possible.

AMALGAMATIONS are still the order of the day, and there seems to be every likelihood of the fusion of the interests of Tincroft and Cook's Kitchen becoming accomplished very shortly. While it is with very great regret that one contemplates the winding-up of Cook's Kitchen, it is idle to blink the fact that the working there has been, perhaps, the greatest disappointment in the county. Thousands of pounds have been put into it, and shareholders have for years paid up quite cheerfully, and the promises of success have been greater than anywhere else. There is a limit, however, to the endurance even of a body of Cornish shareholders, and it is not surprising that some of the largest of them have kicked. The negotiations with Tincroft as to the terms of amalgamation have not proved so successful as some of the Cook's Kitchen shareholders had hoped, but the offer of 600 Tincroft shares, which means just over £6000 on the present value, seems as a compromise a fair offer, and it has been accepted. There is, however, some difference of opinion on the subject, and if some of the shareholders could see the means of doing it they would like to see the old mine, which as an immediate neighbour of Dolcoath has a unique position, continue working under a Limited company, and the improvement which has lately taken place in the bottom of the mine thoroughly developed before it was handed over, bag and baggage, to its eastern neighbour. The chances of this are, however, very remote now that the resolution approving of the amalgamation has been passed. If it is effected, Tincroft will have to be congratulated on its bargain.

ANOTHER amalgamation which seems to be hanging fire is that of Wheal Basset and South Frances. We understand, though, that a meeting of the committee of the latter mine was held last week, at which Mr. Bolitho, M.P., was present, and at which, so far as they were concerned, a basis of agreement was arrived at. A joint meeting of the committees of the two mines will be held shortly, and perhaps then some definite proposals will be allowed to see the light of day. The Wheal Agar and East Pool difficulty seems also to have dropped for the time, though it is high time something conclusive was done here too, or there will be the same trouble to go over again.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of August 1 (four o'clock) as follows:—We have had a firm market this week, with but a moderate amount of activity, and prices are steady to-day. Following are quotations:—Blue Hills, ⅜ to ¾; Carn Brea, 3½ to 3¾; Cook's Kitchen, ½ to ⅝; Dolcoath (Limited), 22s. to 24s.; East Pool, 5⅜ to 5⅝; Killifreth, 14s. to 16s.; South Crofty, 1 to 1⅛; South Wheal Frances, ½ to ⅝; Tincroft, 10½ to 10⅝; West Frances, 1⅛ to 1⅛; West Kitty, 5⅜ to 5⅝; Wheal Agar, ½ to ⅝; Wheal Basset, 2 to 2⅛; Wheal Grenville, 14¼ to 14⅜; Wheal Kitty (St. Agnes), 4s. to 6s.; Polberro, ¾ to 1.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (August 1) as follows:—The mining market presents a firm appearance, and prices generally are well maintained. With satisfactory result of tin sale on Tuesday, Carn Brea and South Crofty, Tincroft and Wheal Grenville show an improvement. Closing prices:—Blue Hills, 11s. to 12s. 6d.; Carn Brea, 3¾ to 3⅞; Cook's Kitchen, ½ to ⅝; Devon Consols, 31s. to 32s. 6d.; Dolcoath, 1⅛ to 1¼; Drakewalls, 3s. to 3s. 6d.; East Pool, 5¼ to 5½; Killifreth, 14s. to 15s.; Levant, 5 to 5⅛; Polberro, 17s. to 18s. 6d.; South Crofty, 1 to 1⅛; South Frances, ½ to ⅝; Tincroft, 10, to 10¼; West Frances, 1¼ to 1⅜; West Kitty, 5¼ to 5½; Wheal Basset, 2 to 2⅛; Wheal Grenville, 14 to 14⅛; Wheal Kitty, 4s. to 5s.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of Thursday, August 1:—Market much better this week, and buying orders predominate. Dolcoath 6s. prem., Carn Breas buyers 3⅞, Grenvilles, Tincroft, and Killifreths in request. Quotations herewith:—Blue Hills, ½ to ¾; Carn Brea, 3¼ to 3⅝; Dolcoath (fully-paid), 23s. to 25s.; ditto (partly-paid), ¼ to ⅜ prem.; East Pool, 5¼ to 5⅜; Killifreth, 14s. to 16s.; Polberro, ¾ to 1; South Crofty, ⅞ to 1⅛; South Frances, ½ to ⅝; Tincroft, 10¼ to 10⅜; West Frances, 1⅛ to 1⅛; West Kitty, 5¼ to 5⅜; Wheal Basset, 1⅞ to 2⅛; Wheal Grenville, 14¼ to 14⅜. Wheal Kitty, ⅛ to ⅜. Tin, 65¼.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write August 1 (noon):—With the exception of the home series, which are irregular, the railway stock market shows an all-round improvement in values, at any rate where any change at all is marked. In home rails, Caledonian undivided are 1¼, ditto Deferred ⅛, South Eastern Deferred 1, and Lancashire and Yorkshire ⅛ to ¾, besides some others ¼ or less higher. On the other hand, Great Western are 2¼, and several others ¼ or under lower. Mexican Rails show no quotable change on the week. In Canadians Pacifics, whilst not quite maintaining best points of the week, are 2¼ up on balance, and Trunk issues are fractionally better, Guaranteed being the best — viz., ⅛ to ¼ up. Americans, though not without some oscillations, are generally higher. Louisvilles are to the fore with rise of $3½, and Milwaukees $2¾, and in their company are Atchison Ordinary $1½, ditto Incomes $⅝, Denver Preference $1, New York Central $1, Norfolk Preference $1, Union Pacific $1, and a few others fractionally better. Against these advances there are no declines to contradict. The dividends announced in home rails are Midland and Great Northern, but as each declaration had been pretty well anticipated, they had no appreciable effect on the market generally. The Grand Trunk of Canada traffic was a disappointment, and put prices in their issues back a bit, but on the week they show as named above. With these remarks it will doubtless be unnecessary to go into daily details. Consols, whilst not quite at the best of the week latterly, still show a gain of 3-16 on balance. Colonial bonds, &c., show a few advances of ¼ or 1, and no declines. In home corporation stocks advances are again in majority, but there is an isolated decline to set against them. Foreigners very generally better: indeed, the only adverse change, and that small, is in Turkish (Egyptian Tributo). Miscellaneous classes of shares have produced but a meagre number of transactions. Throughout the several sections, however, quotations, where altered, are for the most part in favour of holders. The actual changes are as follows:—

CONSOLS.—Higher: 2¾ per Cent., 3-16.

COLONIAL REGISTERED, AND INSCRIBED.—Higher: Cape of Good Hope Registered, 1; New Zealand Inscribed, 1; Victoria Inscribed, ¼.

CORPORATION STOCKS.—Higher: Birmingham Three per Cent., ¼; Liverpool Three and a Half per Cent., 1; Oldham Four per Cent., 1.—Lower: Douglas Three and a Half per Cent., 1.

FOREIGNERS.—Higher: Argentine Six per Cent., 1; ditto Five per Cent., ¼; Brazilian Four and a Half per Cent., 1; ditto Four per Cent., 1¼; Italian Rentes, ⅛; Mexican Six per Cent., 1¼; Portuguese Three per Cent., ⅛; Spanish Four per Cent., ¼; Turks Group D, ¼; Uruguay Three per Cent., ⅜.—Lower: Turkish (Egypt Tribute), ¼.

BANKS.—Higher: Imperial Ottoman, ¼; Manchester and County, ¼; Union of Manchester, ⅛; W. D. and Manchester and Salford, 3-16.

INSURANCE.—Higher: British and Foreign Marine, ¼; Maritime, 1-16; National Boiler, ¼.—Lower: Commercial Union, ⅛; Lancashire, 1-16; London and Lancashire, ¼.

MINES.—Higher: Chartered, ⅜ to 7-16; Consolidated Gold Fields, ⅛ to ¼; Darien B, ¼ to ⅜; Mason and Barry, ⅛; Mysore, ⅛; Rio Tinto, 15-16.—Lower: Darien A, ¼; Londonderry, ⅛.

TELEGRAPHS AND TELEPHONES.—Higher: National Ordinary, ⅛; ditto, First Preference, ¼; ditto, Second Preference, ¼.

COAL, IRON, &C.—Higher: Bolckow, Vaughan Preference, ¼ to ⅜; John Browns, ¼; Cammells ⅜ to 1¼; Ebbw Vales, ¼; Rd, Hornsbys, ⅛ to ⅜.—Lower: Darlingtons, ¼; Rhymneys, 1-16.

BREWERIES.—Higher: Bents Ordinary, ¼; Boddingtons, ⅛; Masseys, Ordinary, ⅛ to ⅜; Taylors Ordinary, ⅛; Threlfalls, 1.—Lower: Allsopps, 8 to 9; Chesters, ⅛.

MISCELLANEOUS.—Higher: Blackpool Pier, 8; Brooke Bonds, ⅛; Brunner Mond, 1⅛; Chadwicks, ⅜; Crosses and Winkworth, 1 1⅛; Henry's Ordinary, 5-16 to 7-16; Hetheringtons, ⅛; Howard and Bullough, ⅛; National Steam, 1-16; Rylands and Sons, 1⅛; Star Paper, ⅛; United Alkali, 1-16.—Lower; Bell's Asbestos, ⅛; Blackpool Tower, 6d.

LATER (4 P.M.).—Home rails good to-day, prices generally being ⅛ to ¼ up. Americans firm as a rule, with some few advances worthy of note, Milwaukees, with 8⅜, being most risen. Mining shares still to the front in business, and prices good nearly all round for the higher-priced shares. Ship Canal issues neglected and dull in tone.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of Aug. 1:—The general market has been firm. In railways the Scottish stocks have been specially good. Caledonian Deferred has improved 48⅜ to 49⅜, North British from 44 11-16 to 44 15-16, Glasgow and South Western from 112 to 113½. Highland has declined from 115½ to 115. In insurance shares Standard Life have risen from 63⅜ to 65, Scottish Imperial from 32s. to 32s. 6d., Guardian have declined from 10½ to 10, London and Lancashire from 16 9 16 to 16⅜, Scottish Union and National A from 91s. to 90s. In banks, British Linen has risen from 386 to 389, Town and County from 20 to 20½, Union from 20½ to 21, Clydesdale have declined from 19⅜ to 19½, Royal from 227 to 226, British South Africa (Chartered) Company have been in demand and advanced from 92s. to 103s. 6d. Second Scottish American Trust Preferred stock has improved from 72½ to 75, at which it has been enquired for. Arniston Coal have receded from 27½ to 27, Cowdenheath have risen from 16½ to 17, Marbella Iron Ore from 49s. 6d. to 53s. 3d., Arizona Copper have risen from 45s. 3d. to 50s., Mason and Barry from 52s. 6d. to 60s., Rio Tinto from 16⅜ to 17⅜, Tharsis from 94s. 9d. to 99s. Oils firm. Broxburn have improved from 14 3-16 to 14 5-16, Linlithgow from 44s. 9d. to 47s., Pumpherston from 10 3-16 to 10 9-16. Distillers up from 18 5-16 to 18⅜.

SIDE LIGHTS ON THE LAW:

Legal Jottings on Cases in the Courts, and on Questions affecting Mining, Railway, Financial, Industrial, and allied Interests.

BY A BARRISTER.

THE Corrupt Practices Act, 1895, received the Royal Assent most opportunely on the eve of the General Election, and naturally has had every chance of having itself presented for construction by the Courts. The Chesterfield division of Derbyshire has enabled the Court of Appeal to declare that the Act was only intended to strike at statements which are derogatory to personal character. Mr. Bayley, the Liberal candidate, obtained *ex parte* an interim injunction from Mr. Justice Day, at Judge's Chambers, on Friday, the 19th ult., restraining the Unionist candidate, Mr. Byron, and his election agent and the printer, from publishing an electioneering leaflet. On Monday, on cause being shown against the Judge's order for an injunction, the order was discharged, apparently on the ground that the learned Judge did not think the accusation affected the character of the plaintiff, who consequently appealed, as he is now entitled to do, to the Court of Appeal direct. The Court of Appeal, however, took the view that the leaflet imputed to the plaintiff hypocrisy, and affected him in his character, and, therefore, granted an injunction restraining its further publication until after the trial of the action for damages.

THE paragraph of which the plaintiff complained was as follows:—"In connection with this election it must also be remembered that Mr. Bayley's firm, who own the Digby and Manners Colliery, locked the men out of their pits for six weeks until stocks were cleared out and coal had reached the fabulous price of 22s. to 23s. a ton at the pit. Then the late Member for Chesterfield found his 'conscience' would not allow him to starve the 'poor miner' any longer." The Master of the Rolls thought the plaintiff had shown *primâ facie* that this was untrue, as nobody now ventured to assert on affidavit that he had been guilty of such hypocrisy and cruelty as were implied by the paragraph which had been copied from a newspaper, and published for the purpose, in his opinion, of injuring the plaintiff in his election.

ASSIGNEES of inventions will do well to take notice of a recent application to the Judicial Committee of the Privy Council for a prolongation of letters patent. The 14 years being the term of the patent for an invention for the protection of iron and steel from rust, granted to one Frederick Settle Barf, since deceased, and two others, being about to expire, the company to whom the English patent had been assigned applied for a prolongation or extension of the period over which protection was given to the invention. The patent was an important one, and the inventors had taken out various patents in foreign countries and the colonies. The inventors, however, had sold the English patent out and out to the company now applying for the extension, and had no further interest in it, and had, therefore, no interest in the application. In the sales of the patents, English and foreign, the inventors had made a considerable sum. The English company had been put to considerable expense, and only now, as the protection was about to expire, were the public beginning to appreciate its value; they, therefore, urged in support of their application that if it was granted they would have a prospect of making a fair remuneration for the outlay. There seemed to be no dispute as to the importance and value of the patent, but the Judicial Committee refused a prolongation on the ground that the inventor had no longer any interest, and had been sufficiently remunerated. As this principle may now be considered thoroughly established, care should be taken by companies or other persons taking over a patent to preserve in the inventor such an interest that, in the event of its being considered necessary or advisable to apply to the Judicial Committee for an extension the inventor may still possess such a title or interest that he would be directly or indirectly benefited by the period being prolonged. The result will, doubtless, now be that the Bower-Barf Rustless Iron Process, the patent of which expires this month, which was an invention for "improvements in effecting the protection of iron and steel surfaces, and in the furnaces employed therein," will come into more general use.

LADIES whose "face is their fortune," and who are in the habit of honouring photographers with sittings in order to receive courtesy copies of their own pretty face which they can present to their friends, have read with some interest the report of the action brought against the publishers of the *Ludgate Monthly*. Mr. Ellis, a West-end photographer, whose business consists in great part in the photographic reproduction of fair women, successfully restrained that magazine from reproducing without his permission the photograph of a lady to whose photographic charms he laid claim. In the approved style of the day the lady had given him sittings, and he had taken many negatives and had sent her courtesy copies. She was satisfied apparently by the notoriety and the supply of free photographs. The result of all this amounts, however, to this: that in pursuance of the Copyright Act the photographer is not only the author of the photographic features, but is entitled, either by himself or his assignees, to the sole and exclusive right of copying, engraving, reproducing, and multiplying them, not only for the term of his natural life, but even for seven years afterwards. The attempt was made to deprive the photographer of his rights as author by showing that a price or consideration had been paid by the lady as reward for the author's work, in which event the Copyright Act withholds from the author the right of reproduction. This price it was urged was the fact that she permitted the photograph to be taken. But the Judge would not allow this argument, for, said he, if that was allowed, then in no case could the photographer be the author unless in the case of surprise photographs or snap-shots.

MANY of the readers of this column are already enjoying, or thinking of seeking their well-earned annual holiday with or without their family. The case of "Sarson *v.* Roberts" will come as a timely warning. The case was tried at the Chester Assizes, and raised an important point of law as to the relation of lodger and landlord, which affects those about to take seaside or country lodgings. The plaintiff took furnished lodgings for himself, wife, children, and a servant for a few weeks. A few days after his arrival, the landlord's grandchild, who lived in the same house, was taken ill with scarlet fever, or scarlatina; but of this the plaintiff was not informed, and, after his return home, his own child was taken ill with scarlet fever, which the jury found had been contracted at the defendant's house. For this the plaintiff sought damages, contending that in every contract to take lodgings there was an implied promise by the person letting that they should be, during the continuance of the tenancy, in a sanitary condition and not suffering from infectious disease, in the absence of notification to the contrary. The jury, under the direction of the learned Judge who tried the case, found a verdict for the plaintiff, but the defendant appealed to the Court of Appeal.

IT will be remembered that the question as to furnished houses has been more than once the subject of judicial decision. In a case some time since, Lord Greville agreed to take a furnished house, but before he was to enter he found that a child in the house had just been suffering from measles and removed, and he consequently refused to take the house or pay the rent, and the Court refused to force him to do so, laying down the principle that there was an implied contract that the house should be reasonably fit for human habitation from the very day on which the tenancy was to begin. In another case the Court held that Mr. Finch-Hatton was entitled, even after he had taken a furnished house and entered, on his discovering that the house had defective drainage and was unfit for habitation, to rescind the contract, and was not liable for rent nor was bound to take it when afterwards it had been put into sanitary condition. But the Court of Appeal in Mr. Sarson's case has said this principle cannot be extended so as to imply in a contract to take furnished lodgings that lodgings which were in a sanitary state at the time of entry should continue to be so throughout the tenancy. The verdict and judgment which had been entered for the plaintiff was accordingly set aside. It follows, therefore, that everyone taking furnished lodgings should expressly stipulate that the house shall remain in a sanitary condition throughout the period for which they may be used, or that in the event of anything occurring to make them otherwise, notice of the fact should at once be given to them.

ROYAL COLLEGE OF SCIENCE.—Session 1894-95: List of Associateships, Royal Scholarships, and prizes awarded July, 1895:—Associateships: Geology—Thomas Barron, first-class with honours; James Harrison and Ernest Watson Vredenburg, first-class; Frank Ackroyd and Henry Waller Laurie McWilliam Bourke, second-class.—Zoology: Ernest Stenhouse, first-class.—Botany: William George Freeman, first-class.—Royal School of Mines—Metallurgy: Leonard George Attenborough, John Collett Moulden, William Henry Rudd, William Evan Simpson, and Basil William Turner, first-class; George Herbert Bigge, Gerald Noel Brown, Edward Herbert Clifford, Hugh Colin McNeill, Harry Richmond Prescott, and William James Turner, second-class.—Mining: Heneage Wynne Finch and Robert William Pringle, first-class; Cecil Moxon Bryant, Herbert Thomas Butcher, Thomas Launcelot Dawson, Henry Arthur Hinton, Edgar Strangways Jones, Clive Selwyn Long-Innes, Percy Walter Lucas, Hugh Colin McNeill, Belfield Marais, and James Morris, second-class.—Ernest Smith, George Marks Russell, Frank Fisher, and Norton Baron, first year's Royal Scholarships; Robert Sowter and Joe Crowther, second year's Royal Scholarships.—Medals and Prizes: "Edward Forbes" medal and prize of books for Biology, William George Freeman; "Murchison" medal and prize of books for Geology, John Caspell; "Tyndall" prize of books for Physics, Part I., William Herbert White; "De la Beche" medal for Mining, Robert William Prindle; "Bessemer" medal and prize of books for Metallurgy, John Collett Moulden; "Frank Hatton" prize of books for Chemistry, William Longshaw.—Prizes of books given by the Department of Science and Arts: Mechanics, Cecil Alwyne Selpram Baxter; Astronomical Physics, Ernest Edward Leslie and William Herbert White; Practical Chemistry, William Henry Hutchin; Mining, Robert William Pringle; Principles of Agriculture, William Williams.

TIN TICKETING.

A TICKETING for tin ores was held at Tabb's Hotel, Redruth, on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.

Mines.	Tons cwts.	Per ton. £ s. d.	Value. £ s. d.
Wheal Grenville	20 0	£41 2 6	£822 10 0
do	16 0	41 7 6	662 0 0
Tincroft	16 0	34 5 0	548 0 0
do	16 0	34 0 0	544 0 0
Dolcoath No. 1	15 0	39 15 0	596 5 0
do No. 1a	15 0	39 15 0	596 5 0
Carn Brea No. 1	14 0	33 10 0	469 0 0
do No. 1a	14 0	33 12 6	470 15 0
do No. 2	1 10	25 12 6	38 8 0
East Pool a	13 0	34 7 6	459 10 0
do b	14 10	35 5 0	493 10 0
do No. 2	1 10	17 10 0	26 5 0
South Frances No. 1	13 0	39 2 6	508 12 6
do No. 1a	12 0	39 10 0	474 0 0
Wheal Basset	22 0	41 12 6	915 15 0
West Kitty	13 0	41 7 6	537 17 6
West Frances	11 0	38 12 6	424 17 6
Phœnix United No. 1	9 0	40 0 0	360 0 0
do No. 2	2 0	32 5 0	64 10 0
Killifreth	10 0	35 10 0	355 0 0
South Condurrow	7 0	41 15 0	292 5 0
	255 0		£9,659 13 9

Average price per ton, £37 1s. 7d.

AVERAGE PRICES PER TON.

April 16	£36 17 1	June 18	£36 0 0
May 7	37 12 2	July 2	36 14 9
May 21	39 0 3	July 16	36 10 0
June 5	37 4 6	July 30	37 17 7

FOR SALE.

*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

WINDING ENGINES.

SPLENDID PAIR, practically new; 24-inch CYLINDERS. Drum any size to suit purchaser. A bargain for quick sale.
RATCLIFFE and SONS, Hawarden Iron Works, Chester.

NANTLE SLATE QUARRIES.

FOR SALE, in the Nantle Vale, Carnarvonshire, the fee simple of TYNLLWYN, a farm of over 50 acres, through which pass the veins, &c., the slates from which have acquired the highest commendation. Also Machinery, Plant, &c.
Apply, PUGHE-JONES, Ynysgain, Criccieth, North Wales.

FOR SALE, OR TO LET.

By Order of the Executrix and Devisee of the late William Thomas, Esquire, J.P.

The Old-Established Engineering and Iron and Brass Founding Works, known as the

RAILWAY WORKS, LLANIDLOES, NORTH WALES.

THE works comprise Iron and Brass Foundry, Pattern Shop, Fitting and Machine Shop, Smithy, Carpenter, and Wheelwright Shop, &c. All of which are fitted with modern machinery and facilities for executing the most varied description of Engineering Works, and would also suit a firm having a speciality for manufacture.

The Buildings are extensive and in excellent condition, and the Cambrian Railway runs right into the works.

Full particulars and terms may be obtained upon application to Messrs. JENKINS and DAVIES, Solicitors, Llanidloes, Montgomeryshire.

ROYAL MINING ACADEMY,

CLAUSTHAL.

Session, 1895-96.

The LECTURES for the Winter Six Months COMMENCE on the 10th OCTOBER, 1895.

Prospectuses free on application to the Directors of the Royal Mining Academy.

BY ORDER OF THE DIRECTORS.

Clausthal, Harz, 10th July, 1895.

SHIPPING.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will Sail as follows for SOUTH and EAST AFRICA, calling at MADEIRA, and TENERIFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
*Pretoria	—	July 30	Aug. 3	Aug. 10
†Spartan	—	—	—	Aug. 17
*Guelph (tw'sc'w)	Aug. 13	—	Aug. 17	Aug. 24
†Tartar	—	—	—	Aug. 31

† Calling at Madeira. * Via Tenerife.

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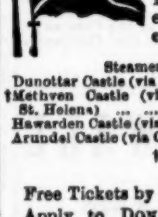

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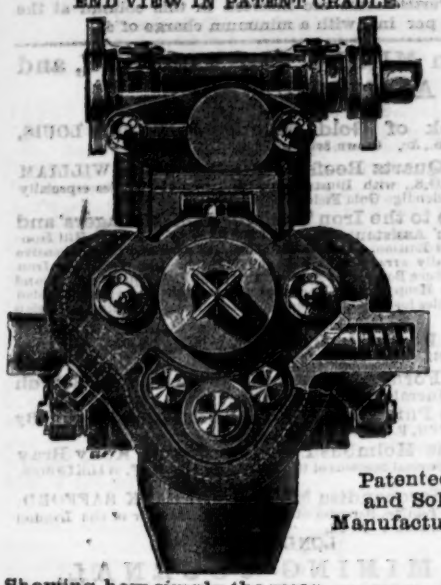

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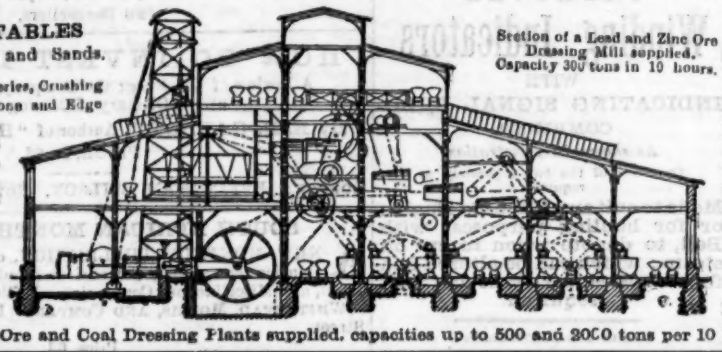

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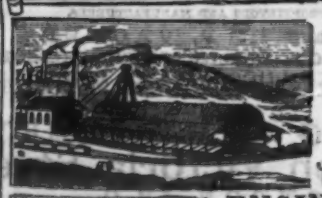

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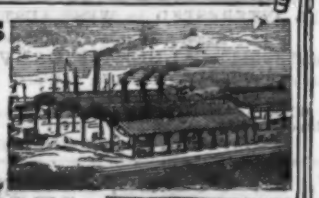

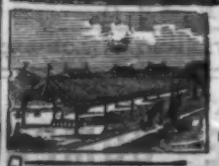

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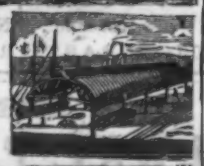

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